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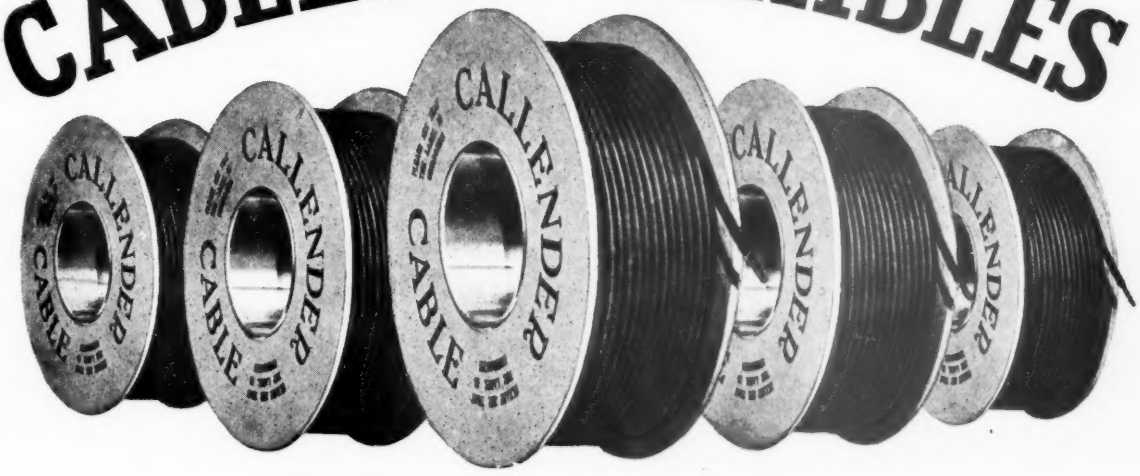

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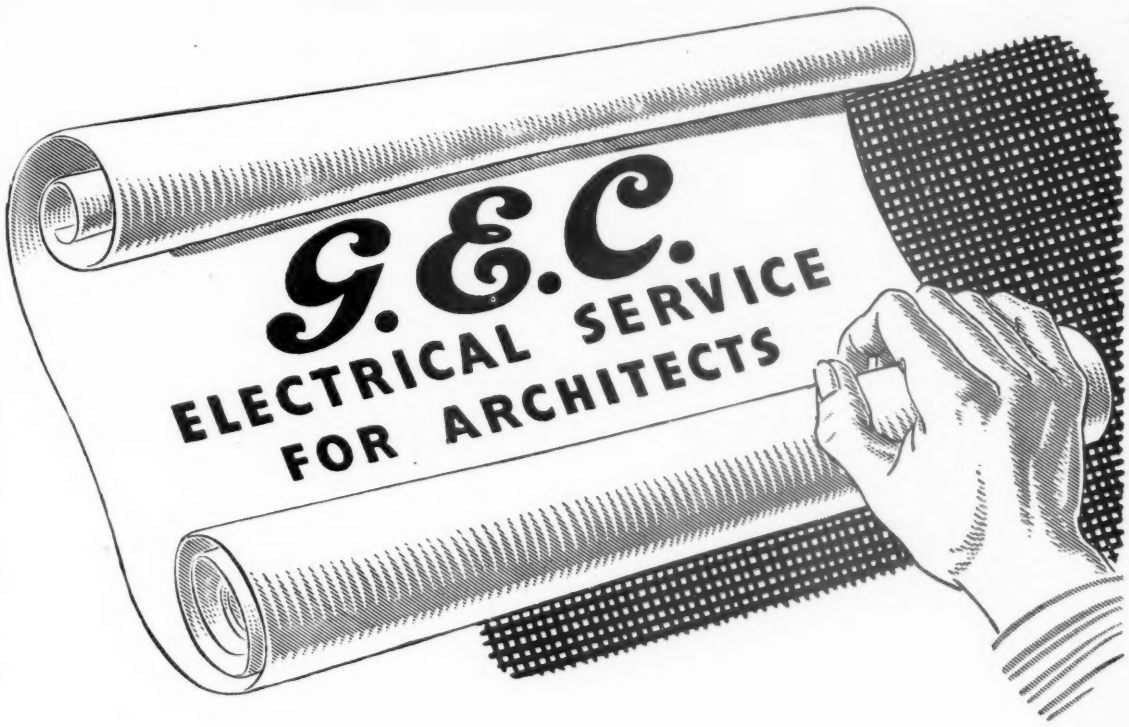

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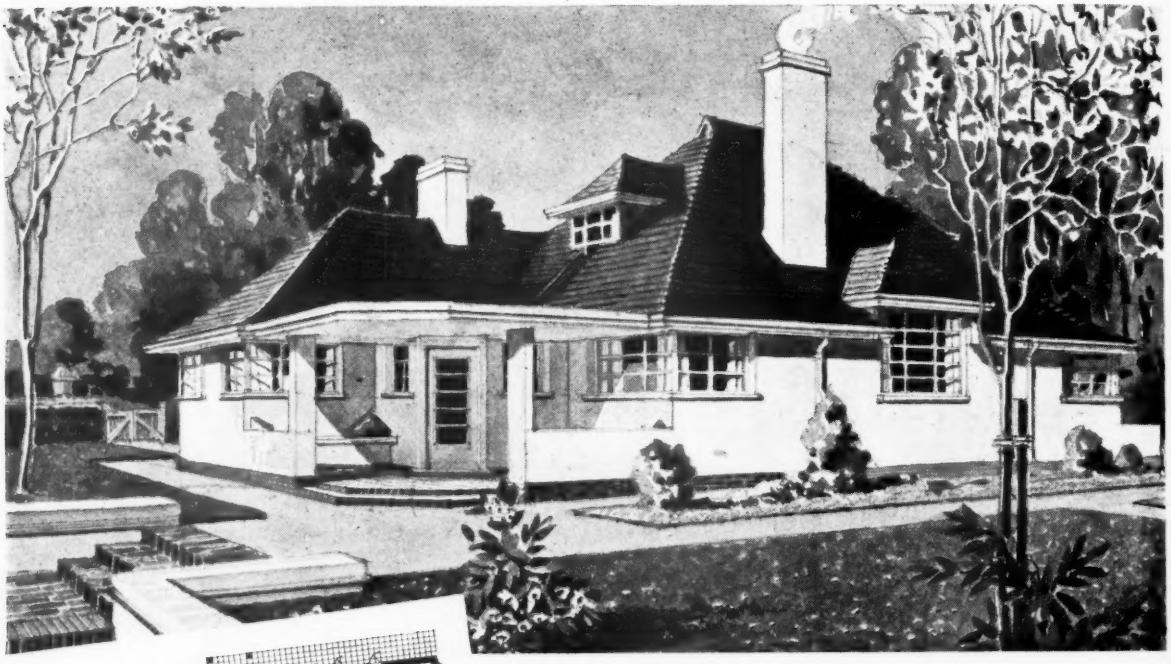
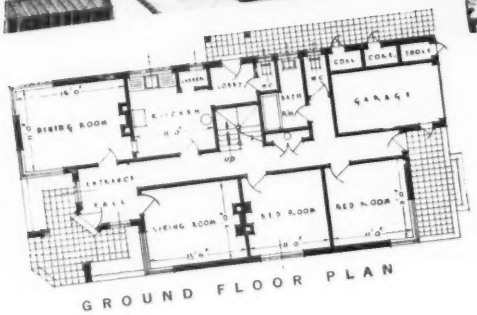
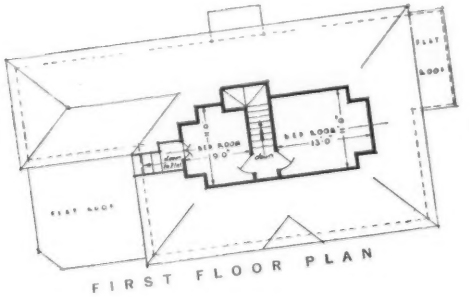




GROUND FLOOR PLAN



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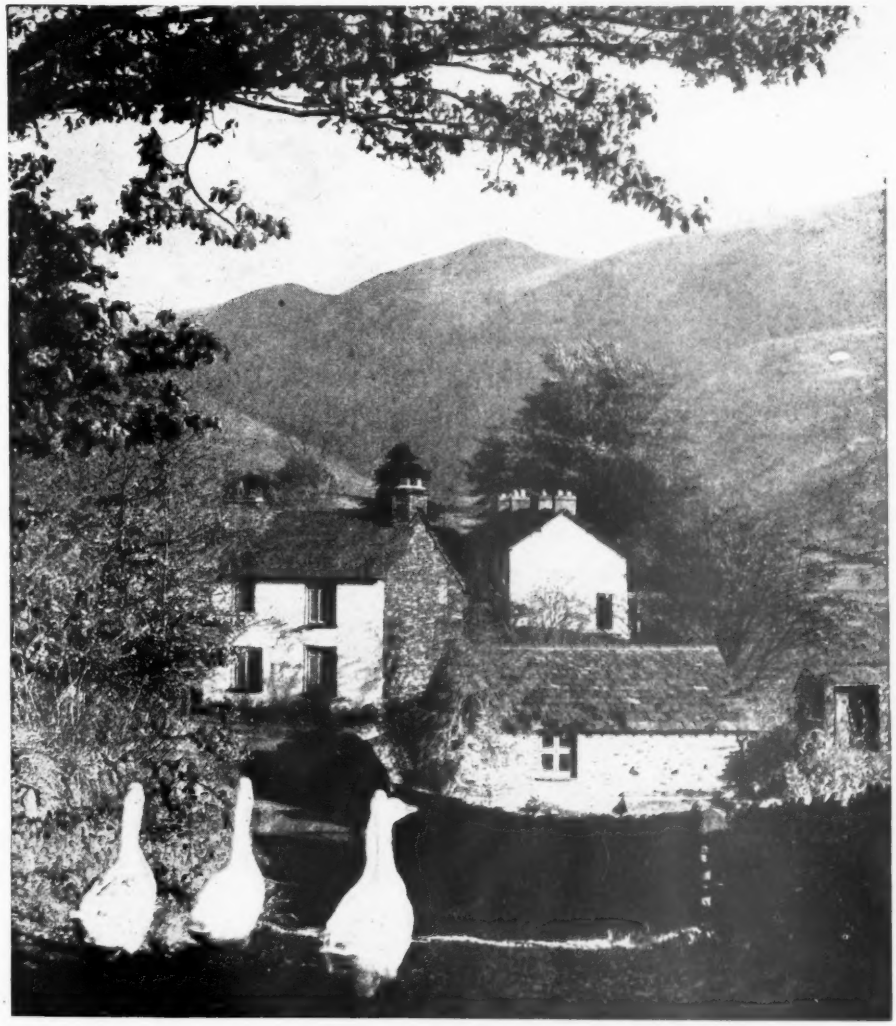

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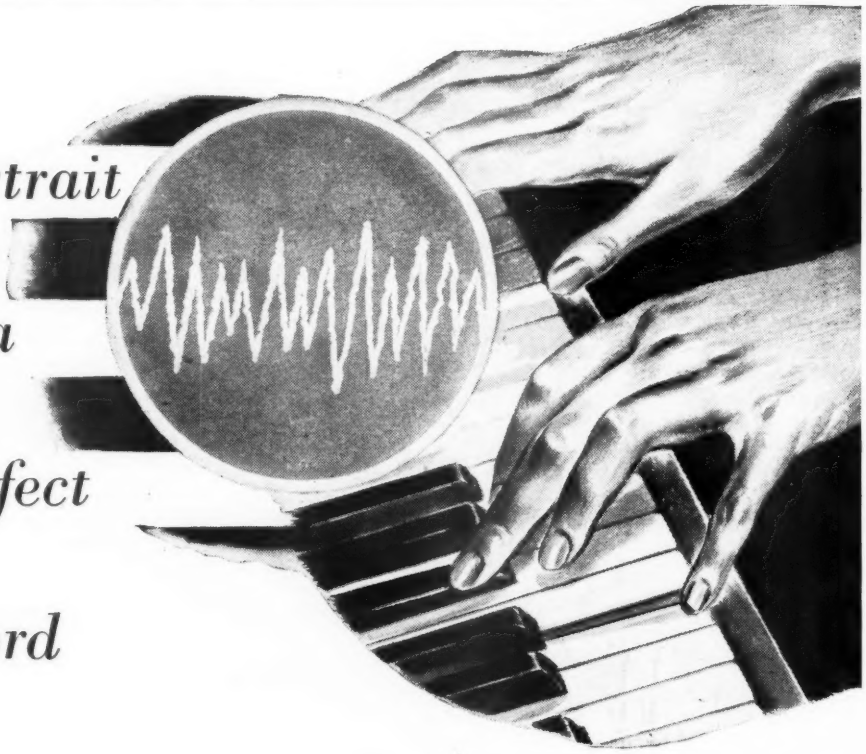

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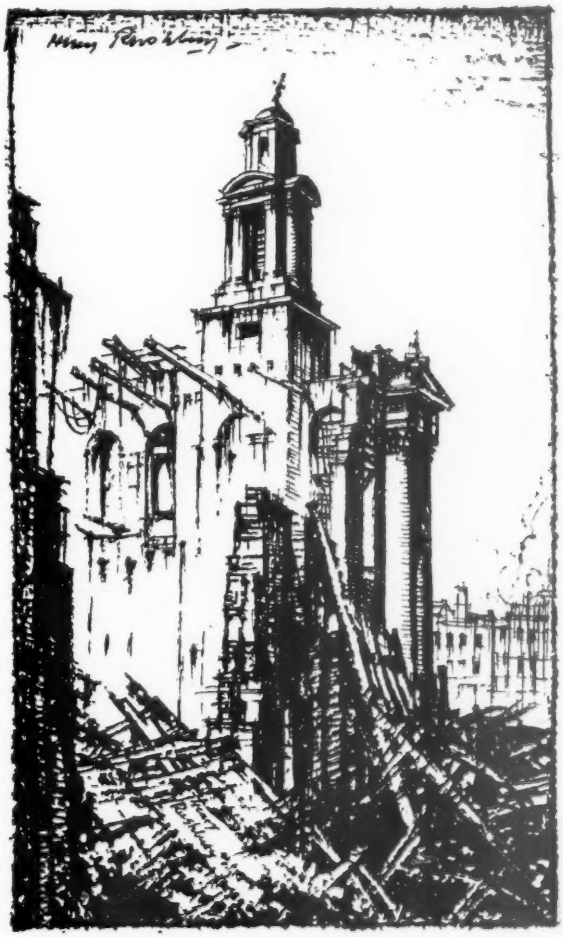

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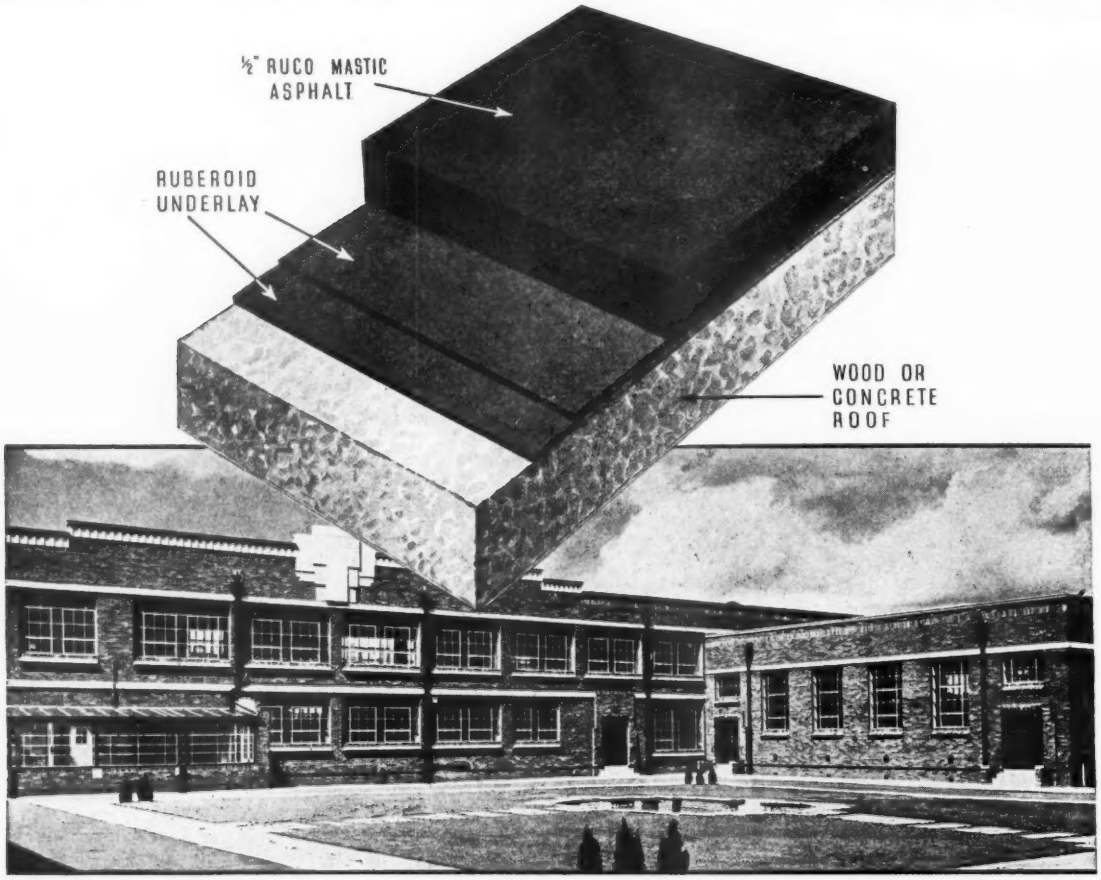

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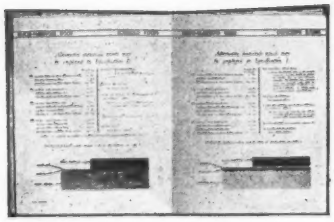

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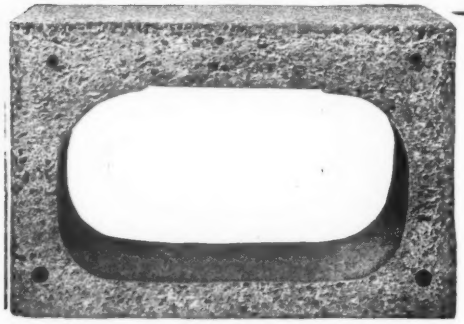

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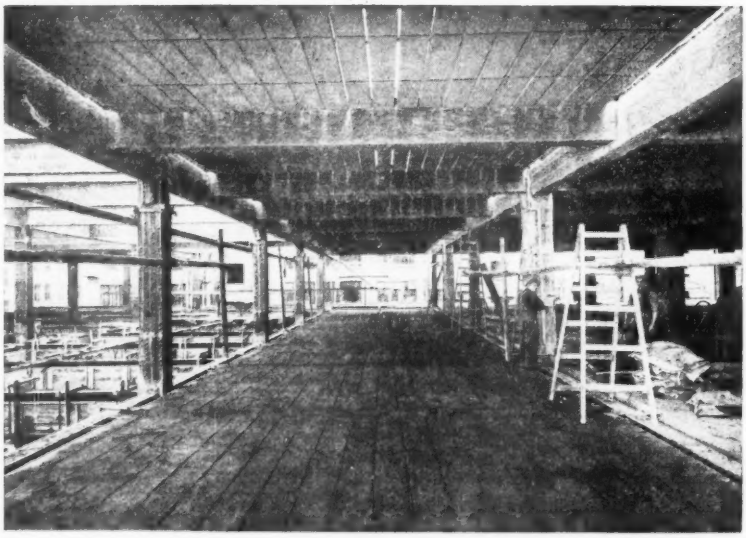

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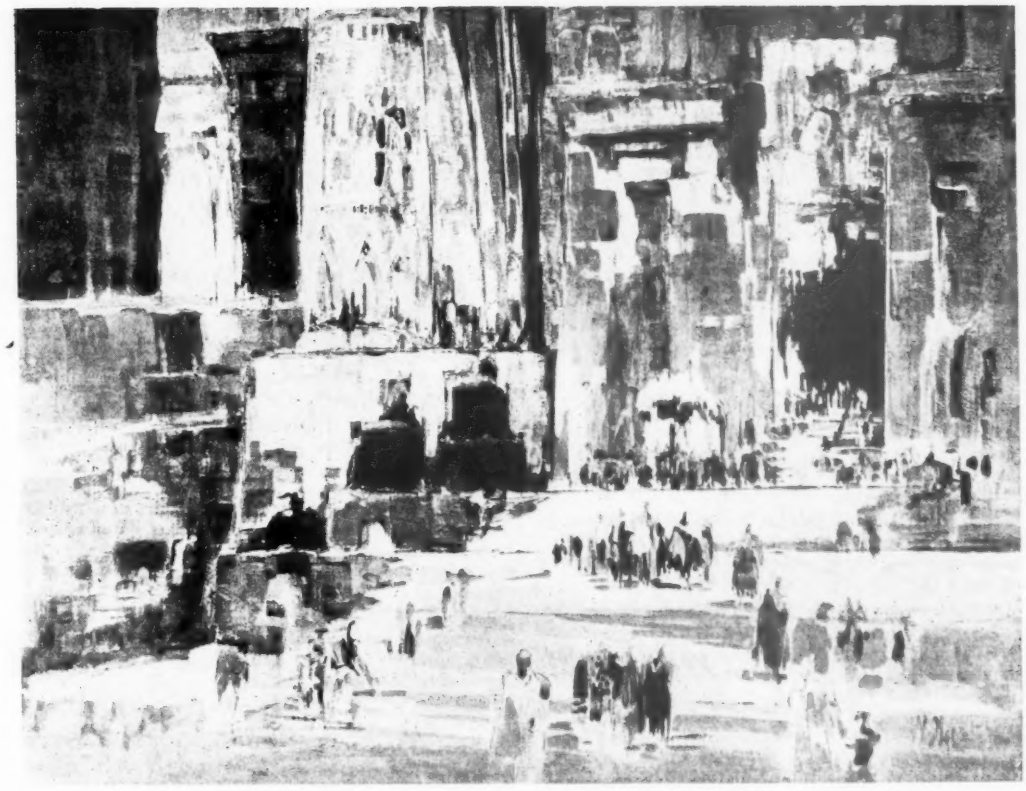

Gouache drawing by William Walcot, purchased by the Council from the Exhibition of Walcot's drawings at the R.I.B.A. during February.

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3rd Series] [*Vol.* 51

No. 4 FEBRUARY, 1944

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Journal

HOUSE CONSTRUCTION OF A DEFINITE LIMITED LIFE

In view of the Government's declared intention to adopt a programme of short-life housing, the War Executive Committee have decided that the recent R.I.B.A. Memorandum pointing out the dangers inherent in such a policy should now be followed by the publication of constructive proposals as to safeguards which might be applied. An *ad hoc* Committee consisting of three representatives each of the Official Architects Committee, the Housing Committee and the Housing Group of the Reconstruction Committee has therefore been appointed to formulate such proposals for submission to the War Executive Committee.

AN INFORMAL MEETING ON PREFABRICATION

An informal meeting will be held at the R.I.B.A. on Tuesday, 4 April 1944 at 5.30 p.m., when Mr. G. A. Jellicoe [F.] will open a discussion on "Prefabrication." He will be followed by Mr. Richard Sheppard [A.] and Mr. A. Pott [A.], of the Building Research Station. The meeting will then be open for general discussion.

WILLIAM WALCOT

An exhibition of the work of the late William Walcot was opened at the R.I.B.A. by the President, Mr. Percy Thomas, on Tuesday, 25 January.

The centre-piece of the exhibition is the great Temple series of ten large gouache drawings, Walcot's supreme achievement as

a classical scholar and artist, in which he re-created the colourful reality of the architecture of ancient Greece and Rome and Egypt with a vividness that has never been excelled. The most recent of these were finished in 1939 and have not been exhibited in London before. The rest of the exhibition consists of about twenty gouache and water-colour drawings, one of the finest of which, reproduced in this issue, has been purchased by the R.I.B.A. Council, and of about twenty large etchings, mostly of classical subjects, and a number of smaller etchings, all of architectural subjects. The exhibition also includes an 18-ft.-long gouache bird's-eye view of Walcot's remarkable scheme for the diversion of the river Thames. This project was for the creation of a straight canal, short-circuiting the river between Battersea and Greenwich, to provide a great industrial waterway through South London, and on the old course a vast "imperial way" winding through the centre of the metropolis.

At the opening Mr. Percy Thomas said that he regarded it a great privilege to open the exhibition to-day, for not only was William Walcot a Fellow of the Institute, but he was a personal friend of many years' standing, and one for whom he had the greatest regard and admiration.

Much had been written about William Walcot as an etcher and painter in water colour, and a glance at the magnificent examples of his work exhibited would convey more than any words of his the debt we owed to him and his place in the annals of British art.

He did not think it was generally realised that Walcot was also a good architect. His little building in St. James's Street was probably known to many architects, but he also made many fine imaginative designs which, alas, were never carried out. There was a design for a Rajah's Palace, made just before the war, which was a magnificent design in the traditional Indian style, but with all that splendour and imagination which Walcot could impart to almost any subject.

He knew that Walcot himself always regretted that he had so few opportunities to design buildings, partly due to the fact that he did other things so superlatively well, and partly to his artistic temperament which was not suited to the hum-drum part of an architect's practice.

Mr. Thomas then referred to the Temple series. Not only were they wonderful and exciting paintings in themselves, but they were extremely interesting reconstructions of Greek and Roman Temples in all the glory of the colours with which they were originally decorated, conveying to the student of Classic Architecture the pomp and splendour of the ancient Greece and Rome he admired so much.

He hoped that some means would be found to keep the collection together. It would be a great pity, he suggested, if they were sold separately and the series split up. Perhaps some patron could be found to purchase them and to make them available to all future students of architecture.

In conclusion he said a few words about Walcot, the man. Bright, happy, the typical artist, he was a delightful companion. Some years ago, Mr. Percy Thomas said, with his son and another friend, he spent several weeks with Walcot in his beloved Rome. Whether it was exploring some of the lesser known buildings and ruins, or jolly dinner parties at the "Concordia," or trips to Frascati, where he persuaded a peasant boy to sing in the ancient amphitheatre, and introduced him to a deadly liquor, that holiday would always remain among his most treasured memories.

A.B.S. Half-Crown Fund

The President writes:—I am glad to be able to tell you that my Christmas appeal on behalf of the Architects' Benevolent Society, for which you so kindly gave space in your JOURNAL, has, up to date, produced donations amounting to £874 1s. 6d. —over £100 more than previous appeals.

As this appeal is made in alternate years only, the Society depends much on the funds thus raised to determine the scope of assistance which it is possible to give to those in need during the coming two years, and this response is most encouraging.

I would like to thank all those who have so generously contributed towards the Fund, and thus enabled the Society to face the calls which may come with confidence that we may be able to help.

I would also like to express my gratitude to you for the publicity you were so good as to give to my appeal, without which, owing to the paper shortage, many donors might not have heard of our needs.

PERCY THOMAS, *President,*
Architects' Benevolent Society.

Code of Professional Practice

The Practice Committee have issued the following note for the guidance of members:

During the war architects employed in connection with factories have, for the purpose of organisation on the job, themselves employed other architects as resident architects. If the owner of a factory approaches the resident architect in respect of other work it is the latter's duty at once to notify the architect who employed him, even though that employment may have terminated. Clause 5 of the Code has no application to such a case, since the relation between the architect and resident architect is that of employer and assistant and not that of two independent architects.

Members are therefore notified of the position so that they may act accordingly should the circumstance arise, and their attention is called to Clause 4 of the Code.

Town Planning Books Wanted

The R.I.B.A. Library is urgently in need of extra copies of standard town planning books which are now out of print and unobtainable except through the generosity of members, or by purchase from them. The present scarcity of books for teaching is one of the most serious minor problems of our times, but it is entirely within our power to solve it if private owners of the books in most demand can be persuaded to bring them out of the select and possibly undisturbed seclusion of their shelves into the stream of service which the R.I.B.A. Library can render.

All the books listed below are wanted. Of most of them we have several copies in circulation now—seven, for instance, of Unwin's Town Planning, for every one of which a member or student is waiting; we could do with seven more. For some books of which we have only one or two copies there are waiting lists six or seven names long. Town planning is not the only subject in which there is this scarcity, so we ask members also to look over all their books and to offer the R.I.B.A. whatever they can spare. We do not want old or out-dated books for the lending library, but only those which are considered of current value for practice and teaching. These are the books:—

Unwin: *Town Planning in Practice.* Adams: *Recent Advances.* Adams: *Outline of Town and City Planning.* Bauer: *Modern Housing.* Haverfield: *Ancient Town Planning.* Hughes and Lamborn: *Towns and Town Planning ancient and Modern.* Lanchester: *Art of Town Planning.* Le Corbusier: *La Ville Radieuse.* Le Corbusier: *Towards a New Architecture* (trans. Etchells). Rasmussen: *London the Unique City.* Tout: *Medieval Town Planning.* Sitte: *L'Art de bauir des Villes.* Thompson: *Site Planning in Practice.* Also all books on Town Planning and Housing Law; latest editions and books in the Harvard City Planning series.

Presentation to Sir Ian MacAlister

The presentation to Sir Ian MacAlister will be made on 21 March at 2.15 p.m. in the Henry Florence Hall. All contributors to the Fund are welcome.

ARCHITECTURAL APPRECIATION

A " talk at large " at the opening of the R.I.B.A. Conference on the Teaching of Architectural Appreciation in Schools on 6 January, 1944.

By CLOUGH WILLIAMS-ELLIS [F]

I saw in one of the preliminary announcements of this Conference the statement that a paper would be read by me. There is no paper—I do not read papers ; I do not know how to—but, if you will suffer me, I will talk at large for a time on this subject, about which I feel very strongly. As Mr. Sullivan said, one of the directives of this whole idea of teaching the appreciation of architecture was that speeches, addresses, lectures and so on should always be followed by general discussion. I assume that general discussion is the chief object of this gathering, and that just what to do (after I and others have talked at large), will be objective of that discussion. That is the only way of doing what we want to do, for otherwise this would not be a " conference " at all. In the last war I had a very talkative Corps Commander who loved addressing the troops, of whom I was one, and he held perpetual conferences at which he talked almost exclusively, so that the message always came down to us in the form—" At 11.30 a.m. to-morrow the Corps Commander will *deliver* a conference." I am not going to try to " deliver a conference." A recent schoolboy howler has its meaning for us. Asked what the Four Freedoms were, he replied " Freedom from fear, Freedom from want, Freedom from religion and Freedom from speech." Some of us, after a series of conferences—begin to see his point !

Cake, Jam and Caviare—and the Early Curly Style

I feel that in all honesty I must be very scrupulous—or try to be, which is rather a different thing—to discount my own private enthusiasms, which I realise may be excessive ; for architecture is not only my bread and butter but my cake and jam and caviare and all the rest of it as well ; it is my diversion and pleasure and hobby and everything else, as well as my work. In fact, the first book that I ever wrote about architecture was called *The Pleasures of Architecture*, and was an attempt to make the ordinary layman realise what architecture could yield in the way of really tremendous pleasure, even to the very young.

Being thus determined to understate my really terrific case, as I feel it to be, I will proceed to say this. I cannot pretend (having undertaken to be scrupulous in this way), that it is absolutely *fatal* to be taught just nothing at all about architecture at school. It is not *fatal*—that is too strong a word—but it is a sorry deprivation, a very real handicap. Anyone who learns nothing about architecture at school leaves definitely crippled as a civilised being. I know, because although (about fifty years ago) I was sent to what was then deemed to be the most up-and-coming progressive school of the time, all fizzing with new and forward-looking notions ; and although I stayed there for six or seven years, by no means unprofitably on the whole, architecture in all that time was mentioned only once, and then unofficially, when a very ancient clergyman gave a lecture on ancient church porches. That was my architectural pabulum at the most formative time of my life—just like that, completely *in vacuo*, quite unrelated to history, life or anything else, and even unrelated, as far as we poor children could make out, to the complete structure ; the porches which he showed us were not even related to the churches to which presumably they were attached. They were just abstract antiquities shown on the screen, with the disembodied voice of the unseen lecturer droning away with a commentary of this kind—" This feature you will observe, is in the Early Curly style, and this other is in the Late Straight, indicating a lapse of possibly 140 years between their several executions. Next slide, please."

That is not very inspiring, and I may say that that was at the not unintelligent school at Oundle, under the justly celebrated Sanderson, who had, unfortunately, a blind spot, not exactly for the humanities, but certainly for all the arts. We were never so much as introduced to architecture in the whole of my time there. We got on as well as we could, but the shameful fact is that to this day I simply cannot make my mind bite properly on dates and details and chronology and names and styles and all the stuff which is supposed to constitute architectural scholarship. I attribute that to having had the subject first presented to me in this arid and entirely abstract indigestible and debilitating fashion ; and that, I may say, also goes for all the textbooks to which at that time I was able to get access. Of course, the popularisation of architecture had hardly been attempted at that time, and everything was as dry as dust. That is no longer true, though we want new and better books,

and it is only the parlous condition of the publishing trade, due to lack of paper, which has prevented us having some more by now.

Naturally I will say that the lack of the attributes of scholarship of which I have just complained does not matter at all, because I take the line of the tail-less fox ; but often I do feel, even as a practising architect, that there is a great deal that I do not know, simply because I have this complex induced by the bad teaching of architecture, or the unsuitable *attempt* at teaching architecture, when I was young. I was absolutely ready to receive it, but because it was presented in this impossible fashion not only did I not receive it but, in the way that humanity does (and children in particular), I " took agin it,"—all the history stuff—and it has never been able to get through to me since. That shows how careful we must be, because if it is done badly it is worse than useless and had better not be done at all.

If privately I had not been a very tiger for buildings, a congenital mason-bee with mortar in my very blood, the little that I was told or was able to read about architecture in those formative years might very well have stifled my interest altogether. Indeed, it would certainly have done so, and I should then have missed most of the pleasure in what has been, on the whole, a very happy life, which has depended for nine-tenths of its happiness on architecture and the allied arts. As Mr. Sullivan said, one of the real merits of architecture as a part of life is that you cannot go very far in it without getting involved in all the other arts, the applied and the fine arts—as indeed is obvious.

Education—Inoculation Against Aesthetic Infection

All of this is merely to make the point that we are now out for something quite different, and in an utterly different way. We are out for far bigger and more important educational game, approached—stalked, indeed—in a more realistic and exciting fashion ; at least, I am, and I think that it is certainly true of most of those architects, as well as others, who are concerning themselves with the architectural enlightenment of the layman, the common man and his common children, if we can so call them.

It is now fairly generally accepted that unless we begin to exercise a civilising influence in the school, and even in the nursery, we are definitely beginning too late ; hence my particular and personal interest in securing an acceptable range of toys, models and very junior books to illustrate, extend and generally subserve our educational propaganda. I may say more about that later, if there is time ; but obviously and notoriously children have homes and parents as well as schools and teachers. It is a fact of nature greatly lamented by most school masters and mistresses, but there it is, a crude fact of nature, which we sometimes tend to overlook, possibly because it is often so upsetting to our beautiful plans for New Deals and for Child Uplift. I think it was Thomas Huxley who lamented that there was no sadder spectacle in all the world than to see a beautiful hypothesis killed by a brutal fact. I feel that this fact is something that we have to keep in mind, though it is a very saddening one, or may be. As a parent myself, I think that sometimes parents can be quite useful in the upbringing of children, though sometimes they are not.

I feel that sometimes we have tended too much to accept the Jesuit view—" Give us a child until it is seven, and it is ours for ever." That might be true if we were working *in vacuo*, but we are not. Of course, they are right up to a point, good psychologists as they generally are, but obviously no child can be kept permanently *in vacuo* ; it continues to have constant contacts with the outside, grown-up world at large, as well as in its own home and with its own parents and relations and so forth and with their views and its environment and their habits of mind. If that environment and those habits of mind are strikingly different from those to which it is being trained and conditioned (as far as that is possible) at school, that will naturally cause confusion and doubt in the mind of the wretched child, and undo a large part of the missionary work on which we are so hopefully engaged.

I think that the astonishing efficacy of education has been terribly exemplified by the thorough transformation of perfectly good children into completely beastly Nazis, and I think that anybody who has had anything to do with education is startled to find how efficacious, after all, education can be. One assumes that that is true not only in that direction but in others, and that it can surely be used with equal effect in the opposite direction. That is one of the reasons why in the last five or ten years my own attention has been turned more and more to education and to what can be done *through* education.

You may well think that I am wandering, but you must see the point I wish to make, which is that we need to do everything we can to improve and to civilize the child's background—its parents and other grown-up contemporaries, as well as its environment—step by step with what we do for the child itself. In my early days I and many like me applied ourselves almost entirely to the grown-ups in talks and lectures and books and so on, and then I at any rate rather despaired of my own generation, and said, " This is no good, it is too late," and switched over entirely (apart from talks to the Forces during the war) to the child ; but I now feel that that again was too extreme, and that in throwing ourselves into this work we must not forget the other part of it, or our work cannot be effective. It is very difficult to know where to start, because an all-round effort is required ; otherwise our good work will be largely undone by the disillusioning contacts and experiences outside the school, where real life will seem to deride, neglect, and make nonsense of, all the standards and values which we have so striven to get accepted by our new young.

I confess that in the past I have despaired of my own generation and of grown-ups generally and have thought that the children were our only hope, but, being now I think wiser, I will quite definitely affirm that even the children, with all we may do for them or to them in the way of conditioning, are a poor hope so long as they go out into a world where they are, as it were, exposed to aesthetic infection and reinfection on every side. A child must be very strongly fortified to survive that, and only a proportion of the whole child population is of such a kind that it will meet you fully half way and accept this and be grateful for it ; with the others you will have to be very skilful and it really will mean patient propaganda to " get it over." But once it is there, it becomes a permanent asset, and makes the child (potentially) a far more valuable citizen than it could be without it.

High Ideals and Nasty Realities

One of the troubles about post-war reconstruction and planning is that while we democratically say that we will give people what they want, the poor dears do not *know* what they want, and how can they ? They do not know the first thing about planning or building or amenities or anything else ; they are in the dark. That is why many of us even at this late hour are doing what we can to enlighten those who have votes for local government bodies and for Parliament, to show them what the choices are, what is possible and what is not possible, and what we think is desirable, of course, without forcing it down their throats. If what we are trying to do now had been started a decade or so ago—there is no question about it—the resulting set-up at the end of this war would be far better than in fact it is going to be, because of the lack of intelligent demand. That does not mean that less should be done for the children ; God forbid ! We are not doing nearly enough as it is, nor shall we be. It simply means that it is all partly labour lost unless and until we do a great deal more for the world at large as well.

In concentrating first on the schools, we are, I feel, starting at the right spot, because they are obviously the beginning and end of every circle, whether vicious or virtuous ; but we, or others equally vigorous, need to be working away at that circle

right the way round its long circumference—children, teachers, Board of Education, publishers, toy-makers, parents, builders, even architects, and the public at large ; which means the general environment, human and otherwise.

As an illustration of that very point, I was talking not long ago to Mr. Bassett-Lowke, whom probably most of you know through the catalogues that your children used to receive before the war, a maker of models of engines, houses and many other things. I was pleading with him for less conservativism in the way of new lines after the war, and asking whether we could not have something a little less romantic and Tudoresque and nonsensical than the current doll's house, for instance. He said, " Of course I could make them, and I should like to do so "—he lives in a very charming modern house himself—" but we have tried that sort of thing, and it is no good ; the children will take only what they consider representative of the real thing. If that thing is a house, the closer that it can approximate to the nasty little villa in which they live, with sham half-timbering and inglenooks and so on, the better ; otherwise they will not look at it. I brought out," he added, " a model of a new streamlined engine, looking more like a silver sausage than anything to which we are accustomed as a locomotive, and the latest thing, but it was not accepted at all, because it was like nothing they had yet seen in the world outside."

That illustrates my point beautifully. It is no use providing something in the school which seems quite separate and quite different from reality outside. We have to do it to some extent, of course, because we have to start *somewhere* ; but it is going to have very much less effect than it would otherwise have unless at the same time the children can see some evidence outside of what they are shown as new and good in school. If they do not see it outside, they will wonder whether it really is true or new or good and they will not readily accept it.

The Potency of Nurture

I believe in the potency of nurture as against mere nature, that people are made what they are rather than so predestined by birth. Of course, eugenics are important, but they are merely a foundation, and as yet, I feel, pretty debatable as regards the human animal, who, after all, is so very much more than an animal.

> " If the eggs of an idiot hen
> Are perfectly sensible, then
> What the hell is the use
> Or eugenics' excuse,
> And why should we try it on men ? "

That is just a beautiful and bewildering stanza without much excuse, except to maintain a sort of confused doubt in your mind, or in the minds of the cocksure !

I think that I should, as my time is disappearing quickly, switch to this. My conviction—and I think that it is the conviction of many of my contemporaries—is that the State can be both glorified and enriched by its artists. That, though an old notion, is being gradually received again, though perhaps more cautiously in England than anywhere else. Lord Keynes, who contributed to my book, *Britain and the Beast*, wrote a section on *Art and the State*, and I think put it magnificently. I only hope that his economic preoccupations will not prevent him, when the time comes, from returning to that thesis. What is the use of artists doing beautiful things unless they have an appreciative audience behind them ? Without that audience they would cease even to do them. That audience will, we hope, be provided by the schools.

It is through the schools alone that we can break into the vicious circle of which I spoke, the vicious circle of shoddy education and debased public taste. You may remember that Bernard Shaw once said that if any picture were ever admired by as much as 10 per cent. of the population, then it should be most certainly burnt. That is indeed a desperate saying, and I think it is our job to make it also a silly one. The trouble is that I am not sure that he is not right ; that is what hurts ! We have to try, however, to make him wrong, but it will take some doing !

We who are here know the high place of art consciousness is making existence worth while and joyous, and we are convinced of its almost limitless powers in that direction. There is no question about that. In my own case, if I had not those resources I would much sooner be dead, even if there were no rationing ! Art, I feel, is indeed (as Rebecca West described it), " that strange necessity," and I do not mean only the fine arts, but the applied arts, of which architecture is the mother, permeating the whole of civilised living.—If it does not permeate it, it is *not* civilised living. Lacking " that strange necessity," life, it seems to me, can be but a very poor, maimed thing, whether we are aware of that grave deficiency or not. Those who well serve the arts are assuredly the salt of the earth, without whom its finest savour would be wanting.

Don Marquis's Confidence

Don Marquis, an American philosopher to whom I am devoted—I believe that I am the only man in England who knows anything about him, which is very sad ;—though they are letting me broadcast some of his stuff—in his book, *The Almost Perfect State*, he challengingly says this :

> " The purpose of the universe is play. The artists know that, and they know that play and art and creation are different names for the same thing, a thing which is sweats and agonies and ecstasies. The artists, who know more than anyone else about play, which is art, which is creation, must be the leaders and the guides, and this earth must submit itself humbly and receptively to the creative spirit. The people of this earth must learn to listen to their artists and make them their guides and governors in all things, and come to realise that to give heed to anyone *but* the artist on any subject whatsoever, is damned nonsense."

I am provoked into quoting that magnificently reckless passage by a feeling that we have so far modestly underplayed our so obviously winning hand of the humanities and the arts, and we want to be braver about it and speak more as Don Marquis does. Is it an over-statement ? Perhaps ; but I am not sure. Seeing what we have lately made of our world, one simply cannot help wondering whether some such change of management might not be worth while, and personally I am for risking it ! I am for calling in the poets as well as the plumbers to set things right ; I think that we have attempted to do things too much with only the latter.

Speaking here to-day, I suppose that I do so partly as representing the Council for Education in the Appreciation of Physical Environment. You may possibly know, or like to know, what we are doing, and why we think that you may take an interest in our doings. Apart from the good of the child itself, I think it always sounds more convincing if you can produce a good economic argument, if you can make things sound not just plain selfish, but pertaining perhaps to " the higher selfishness " ; and then people will believe you. What I should say, speaking this morning at the R.I.B.A., is that what we are really secretly up to is trying to create a demand for the sort of goods—that is, fine architecture—that we here can produce so readily and at the shortest notice. If there is not that intelligent demand, people will not know how good we are. We are trying to educate the future consumer demand for decent design in the physical background and equipment if living—town and country planning, architecture, and all the things of daily use.

For some time I was President of the Design and Industries Association, which goes on merrily to this day, and that is primarily concerned with the smaller things—the equipment of the house, the pots and pans, fabrics and furniture and so on. We

have to tackle all these things, because it is quite fruitless to direct a child's attention to good architecture alone, to good houses perhaps badly placed for lack of proper town planning, or to good houses which are subsequently stultified by being furnished and equipped with the sort of muck which I hope we shall never see again—tho' we probably shall, because the old models survive, and it is easier to fish them out and use them again than to think up new, clean, efficient things. Architecture as such comes in the middle ; on one side you have town and country and national and international planning, which carries you into everything, and on the other side you have the details—your equipment, your furniture and the minutiae of living, which all have to be dealt with if the result is not to be a muddle and incoherent.

We aim at producing discriminating customers who will know and demand competent designing and who will no longer love the lowest when they see it. We want to create an appreciative and encouraging audience for the good artist and technician, and to ensure rotten eggs and derisive boos for the bad. As things are the charlatan being unhampered by a conscience, often prospers more than the honest producer, because he can concoct the flashy, meretricious, exciting-looking things that will not work or last, much more easily than the good craftsman can turn out an honest job, and we want to put an end to that. I feel that any school which is doing anything in this direction is very definitely the handmaid of the planner and of all those who are trying to produce a civilised background.

Amenity Vitamins

You have been told how, with the cordial backing of the President of the Board of Education, we have already infiltrated into the State schools by way of lecture courses to existing staffs, who in turn colour and vivify their normal lessons in history, geography, English, art or whatever it may be with what may be called the amenity vitamins which we hope we have given them. And of course we have done what we can to produce lists of available books, and we are having a smaller number specially written. Professor Reilly is writing one of them, which I think should be very good, and I have contributed another, which is only held up for lack of paper. Of course, we envisage an exhibition at no distant date, because no movement to-day is complete without an exhibition of some sort, and we are not going to be left behind. It should be an exciting one.

I will leave that part of the Council's work there, and come back to what I feel that we are up against and what we must not forget in our attempts to civilise the British young.

The British Taste for *Objets d'Art*

We have probably to accept the fact that the genius of Britain lies definitely in directions other than those of the visual arts. I am quite clear about that in my own part of the country, Wales. As regards buildings and the visual or plastic arts generally we do seem as a whole to be tone deaf. I cannot get through to people ; they do not understand what I am talking about. To quote Don Marquis again, I feel screaming at them :

> " Your gods are made of putty,
> And mine are made of clay,
> And so I think you're nutty,
> And so you think I'm fey."

As a people, we seem to mistrust and dislike any artistic attempt in anything not specifically an *objet d'art*. We dislike life and use and art being interwoven and mixed up ; we find it confusing and a little shocking. We do not readily recognise art unless we segregate it in museums, galleries and art schools, and keep it obviously and comfortably apart with a capital " A." Wherever we detect or suspect its presence free and at large in the workaday world we resent it as a frivolous intrusion.

On the other hand, we who take another view are interested in all forms of design, from the planning of towns and buildings to the making of pots and pans. We hold that mass production need not mean ugliness or poor workmanship, and that, rightly directed, it can achieve a beauty equal to, though different from, the work of the individual craftsman. That that is *not* so is not, I think, an error into which we are likely to fall now—decrying things just because they are machine-made. That is an outworn philosophy to-day ; it simply is not true. Such beauty is not, of course, to be sought for in added ornament or in any faking of materials, but in the logical excellence of design and in perfect fitness for purpose.

In the more civilised future which the architect must be especially active in bringing to birth, architects will be looked on, I trust, not merely as designers and builders but as the chief directors of a new general movement towards visual beauty, of which some of us think that we already detect the first beginnings. In England any such movement will necessarily be very slow, and the final results probably disappointing to anyone but ourselves, who are used to ugliness and who do not expect beauty as anything but a rather exceptional treat. If we are not yet doing much to create beauty we are at least increasingly aware of and impatient with needless ugliness. I shall not pursue that, because that leads to preservation, which, though you must take it into your school purview, comes much later. I think that the child is much more, and quite rightly, interested in new construction, in the things that are actually going on or are going to go on.

There it seems to me that your approach ought to be easy. There are so many good approaches to architecture. You can use the collecting mania, which is so prevalent an epidemic amongst the young. There is almost nothing I can think of that some child or other has not collected or started to collect, and with photography and local surveys and gathering together illustrations and so on, you can " stalk " architecture in that way very effectively.

Do not be too particular about the first approach. They may approach it—(I think it is absolutely wrong ultimately, but anything for a beginning)—entirely in the spirit of attaching to buildings nothing but a rarity value. But better that than nothing—as a beginning. Do not sit on them too heavily in regard to what they first like and get excited about, which may possibly be the rather loud vulgarities of the past. There is a lot of Elizabethan architecture with which I fell madly in love in my teens ; I thought that nothing could be more desirable and more moving than the rather coarse strapwork and arabesques in Elizabethan gables and so on, and I collected pictures of nothing else—for about a fortnight—and then I began to grow up and to see that it was not the only thing, and that just because it was weather-worn and of respectable antiquity and of the Elizabethan age, made no difference at all to the fact that it was really rather vulgar tripe. Probably, however, if I had been authoritatively told by somebody I respected, that would have so undermined my confidence in my own taste or perceptivity that I should have just given up. One wants to be very careful not to snub children who have shown an interest in something, just because they show that interest in a rather superficial or wrong or dull aspect of that thing.

It is time that I stopped. After all, this *is* a conference, and with the Chairman's permission I will cease speaking and stand by ready to be provoked into jets of speech again by anything that any delegate may have to say to me in the way of question, retort, denial or anything else.

THE CHAIRMAN : I am sure that we have all found that a most exhilarating speech. Although our discussion proper is to take place this afternoon, I am sure that if you like to ask Mr. Clough Williams-Ellis questions, further to illuminate what he has said, he will be most happy to answer them.

MR. CLOUGH WILLIAMS-ELLIS : If this business of questions is a two-way traffic, I should like to ask *you* something. Some of you, I take it, are directly concerned in teaching, and not merely —well, I will leave it unsaid ! Do any of you remember a book which was published about twelve years ago, called *An Outline*

for Boys and Girls and their Parents? (Cries of "Yes.") It was published by Victor Gollancz and edited by Naomi Mitcheson. Because it was then considered rather too "Left" in flavour I understood that it had been rather a "flop," but the other day, when I tried to get some further copies, I was told that it had been out of print for some time. I suppose that to-day, any book, good, bad or indifferent, can be sold. Anyway, I did the section in it on architecture for children.

I assure you that it is extremely good. I am sure that it is, because I tried to do a new one without harking back to that. I know, of course, that my powers are rapidly declining, but the new one was not nearly as good, and I should like to bring that one up to date and have it re-illustrated, because I do not think that the pictures are suitable.

A Catechism

Mr. Sullivan referred to a catechism for buildings. Here I had a rather more direct catechism, addressed to the building itself, which I gather has gone well where it has been used in schools. I shall be very glad of your criticism of this, if you think that it is suitable and applicable. I say: "Here is a sort of catechism for buildings, and according to how they"—that is, the buildings—"answer your questions, which you will find that they do fast enough as soon as you get good at asking them"—this is addressed to the child—"you will be able to make up your mind about them and decide whether they are good or bad." This is the catechism:

"(1) Are you practical? That is, are you an efficient house, shop, school, factory or church? Can a family be brought up in you or cheese be sold or children taught or boots made or services held in you with convenience?

"(2) Are you well and truly built, solid, safe and sound?

"(3) If you are new, are you going to look shabby or still raw in ten years' time, or have your materials been so wisely chosen and used that the years will pleasantly mature and mellow you?

"(4) Are you beautiful, or any at rate to me, or did you seem so to those who built you; and if so, why?

"(5) Is there any special idea about you? Are you vigorous, or restful, long-strung-out (horizontal) or all-up-and-down (vertical), quiet or gay; in short, have you any special character, and, if so, of what kind?

"(6) Are you a good neighbour? Do you love the Tudor inn next door, the Regency chemist's shop opposite, the pollarded elm trees or the church across the way, as yourself? Do you 'do-as-you-would-be-done-by'? Do the other buildings and the trees and surroundings near you generally gain or lose by your presence? In short, have you civilised manners?"

Questions such as these will naturally lead on to more detailed and technical ones—for example, What is the relation or proportion between wall surface and windows? What are the proportions of the windows themselves, and even of their panes? Is the pattern a pleasant one, or is the general effect rather blank and sad or too cut up and fussy?

Would you agree that that kind of thing could usefully be employed? I feel that perhaps the most difficult thing and the most necessary thing is somehow to extract expressions of opinion from children and get them to commit themselves to *something*. If they are wrong, you can say "Yes, I see what you mean, but on the other hand have you considered this, that, or the other?" This is not like mathematics, where an answer is right or wrong; but you may have an unconsidered answer, based on insufficient data. What we want to do is to give the children the data on which they can make up their minds. That is what our general population so tragically lack; they do not know what they might have and what to ask for, and it is very difficult for them to make any contribution to the vast planning debate which is going on at this moment all over the country.

In every factory, in every military unit and on every ship there is informal, if not actually formal, discussion going on, and discussion groups busily engaged in discussing things that are nearly related to architecture in this wider field, and of course that is a debate which will need to go on as long as civilised life goes on. Although, as I said earlier, we have started too late—ten years, twenty years, a generation, a century too late—too late, that is, for the immediate things—any child who can be given a civilised, informed outlook on these things is going in time to make its influence felt. What we are now launching is going, I hope, to carry on increasingly (possibly with less momentum but with better direction to make up for it), and for ever. Unless into that stream we can inject a perpetual recruitment of young who have some contribution to make, we shall do no better than we did in the nineteenth century, in the Industrial Revolution, when our "demi-paradise" was very nearly turned into a demi-dustbin. That's all.

The Place of Science in the Art of Lighting

A meeting at the R.I.B.A. on Tuesday, 18 January, at 5.30 p.m.

The President of the R.I.B.A. in the chair

A joint meeting of the R.I.B.A. and the Illuminating Engineering Society was held at the R.I.B.A. on Tuesday, 18 January, organised by the Architectural Science Board, when Mr. Alister MacDonald, chairman of the A.S.B., and Mr. R. O. Ackerley, past-president of the I.E.S., gave a joint lecture, demonstration and debate on the subject of SCIENCE IN THE ART OF LIGHTING.

The meeting was a complete success. As an experiment on refresher course technique the meeting was a *tour de force* of presentation with the two speakers interlocking their arguments—one for more art and architecture, the other for more science and higher-level technique—with a spirit and humour which never allowed the serious purpose of the meeting to be lost sight of, though it enlivened and enlightened it.

Mr. Ackerley's part was largely in the presentation of a number of highly effective demonstrations of the way in which lighting effects can be scientifically controlled by anyone who understands the scientific properties of light and the resources of modern technique. Mr. MacDonald's part was largely in showing how all this science and technique needed architectural understanding before it could be utilised to the full. Each part of the audience, scientist, lighting expert and architect had to work in sympathy with the others.

Mr. MacDonald first emphasised the increasing dependence of architects on scientific services—science as the handmaiden and not dictator of the art. The scientists wished this to be so and were increasingly aware that they depended on the artists for the effective application of all they had to offer.

Mr. Ackerley suggested that the illumination problem to-day was quite different from what it was in the past, chiefly because the power of illuminants had increased enormously. The old architect was never troubled with glare because his light sources were distributed—6,000 candle power meant literally 6,000 separate candles which to-day could be concentrated in 24 points.

Next, Mr. Ackerley—using a small model of a room—demonstrated how the quantity and placing of light sources could change the apparent size and character of a room and how changes in the colouring of the room and its decoration could change the apparent quality and strength of the light. He illustrated the use of light to enhance or nullify the effect of architectural decoration by casting light from different angles on to a bas-relief panel ; and, by lighting a panel of velvet with the pile brushed in varying directions, showed how even without actual three-dimensional relief in the object lit the architect by the skilful control of his light sources could produce a wide range of effects.

Other demonstrations were made of the importance of the position of light sources behind glass. Various types of glass were lit from behind so as to produce effects of patchiness and glare or even illumination ; the moral constantly being pointed by both speakers that the architect must know the physical resources of the materials he is using and the illuminating engineer must appreciate the type of effect that the architect wished to achieve. It was shown, also, that the inexperienced architect might certainly get his effect but through ignorance of the intricacies of lighting technique and lack of understanding of, for instance, the varying properties of different types of glass might produce them only at wasteful cost.

In between Mr. Ackerley's demonstrations Mr. MacDonald showed lantern slides of actual lighting effects in recent buildings which re-emphasised the lesson of the experiments in clear and architectural form. Among the buildings illustrated as good examples were various London Transport stations and the Brompton Oratory (the lighting of which was described in the JOURNAL, 23 May 1938). It was suggested that classical buildings " stood up " to intensive lighting better than Gothic and some awful examples of badly and over-lit Gothic churches were shown.

The " dumb engineer " and the " unscientific architect," played by Mr. Ackerley and Mr. MacDonald, gave the meeting one of its best ten minutes when they both attempted to light a frieze. The dumb engineer, all out to achieve " perfect," even, illumination, produced a prodigal quantity of light entirely lacking in liveliness or respect to architectural form ; the unscientific architect, with his pre-conceived notions, for instance, of cornice width, and in complete ignorance of the technical problems of housing the lamps, produced patchy, insufficient illumination, and failed to achieve the effect he was aiming at. The engineer, failing to understand the architect's aims, could achieve his effect only on terms which ruined the architect's design. The architect could only achieve his aims partially and expensively. It all ended happily, as, indeed, it had to, to bring the display to a properly educative and moral end.

A Forgotten Episode in the History of Robert Mylne

By KATHERINE ESDAILE

Architect as he was by profession, Mylne was something more. As the masons of the past, his own family included, had combined the professions of architect and sculptor, so Mylne combined those of architect and engineer, thereby heralding a new age which was to last until the later nineteenth century saw them separated, a disaster, architecturally speaking, of the first magnitude. Let us briefly summarise his career.

No fewer than eight of his ancestors from 1474 onwards, all masons, are mentioned in the Dictionary of National Biography, where he and his son, who is described as engineer and architect, also take their place, an example of hereditary talent in one field without parallel elsewhere ; his father held the post of Surveyor to the City of Edinburgh, and sent his brilliant son to Italy, where he worked from 1754-8, gaining the gold and silver medals for architecture at Rome ; in 1759 he returned and won, at 26, the competition for Blackfriars Bridge, and this at a time when popular feeling against Lord Bute, and with him against all other Scotsmen, was nothing short of violent in London ; at 32 he became Surveyor to St. Paul's Cathedral ; at 33 he was elected F.R.S. and appointed joint engineer to the New River Company, becoming sole engineer three years later, when he rebuilt the company's offices in Clerkenwell. Churchill satirized him to no effect ; caricatures of *The Puffing Phenomenon just Arriv'd from Italy* and *The Northern Comet* had no effect. Dukes, Bishops, Corporations employed him ; he designed canals, drained fens and built country houses, and his desire to be buried next Wren in the Church of St. Paul's was rightly fulfilled, since it is to him that we owe the immortal epitaph, *Si monumentum requiris, circumspice.*

What concerns us here is that in the year of his becoming joint-engineer to the New River Company he received a commission for rebuilding the Mansion House of Wormleybury, Herts, for Sir Abraham Hume, father of the connoisseur. Whether one was the consequence of the other is uncertain ; what is certain is that his duties as architect took him repeatedly to within a few miles of the springs which supply the New River at a moment when those springs had become his official concern ; to the combination may well be attributed that love for Great Amwell which took him to that village in his last years and brought about the changes there and at Chadwell, two miles off, which it is our business to describe.

Mylne's reputation as an engineer was based on London's need of a new bridge as Sir Hugh Myddelton's was on London's need of water. Mylne had returned from Italy laden with the highest honours ever won there by an English architect. Success in other fields had made it possible for Sir Hugh to conceive and carry out his project for the betterment of London : banker, goldsmith, trader, cloth-maker, tradition says that he was taught to smoke by Raleigh, and if his plan of coal-mining in Denbighshire had been carried out, the industrial history of England might have been very different. Mylne, too, had imagination ; his portrait, done at Rome in 1757, with a fillet *a l'antique* in his hair, is sensitive as well as strong ; and his passion for the picturesque, however clumsily expressed in words, was strong. There is something singularly appropriate in the fate which was to link his name with Myddelton's.

Amwell then got hold of him, as it had earlier held Sir Hugh Myddelton. He lived there ; he built a family mausoleum there ; the waters of the New River were his charge, and late in life he honoured them in a typically eighteenth-century fashion by an urn, a pedestal and suitable inscriptions.

What was the course of the New River like when he, a Scotsman trained abroad, took over the care of it at the age of thirty-two ? We can best judge from a description published in the same decade

—" The distance from London is twenty miles, and he [Myddelton] was obliged, in order to avoid the eminences and vallies in the way, to make it run a course of thirty-eight miles three quarters and sixteen poles, and to carry it over two vallies in long wooden frames or troughs lined with lead ; that at Buthill being six hundred and sixty feet in length, and thirty in height ; under which, for the passage of the Canal waters, is an arch capacious enough to admit under it the largest waggon laden with hay, or straw ; the other near Highbury is four hundred and sixty-two feet long, and seventeen in height where it is raised along the top of high artificial banks, and at the bottom of the hollow supported by poles, so that any person may walk under it. In short, over and under this river, which sometimes rises thus high, and at others is conveyed under ground, run several considerable currents of canal waters, and both above and below it a great number of brooks, rills, and watercourses have their passage." In 1739 a Bill giving powers to the New River Company to tap the river Lee states that " this cut of the river now [1763] supplies the largest share of the New River water. In this river there are forty-three sluices, and over it two hundred and fifteen bridges. On its approaching the reservoir, called New River Head, there are several small houses erected at a considerable distance from each other on its banks into which the water runs and is conveyed by pipes to the nearer and more easterly parts of the metropolis. On its entering the above reservoir, it is there ingulphed by fifty-eight main pipes, each of seven inches bore ; and here also an engine worked by horses, throws a great quantity of water up to another reservoir, situated on much higher ground, from which the water runs in pipes to supply the highest ground in the city, and its liberties. Many years ago 30,000 houses were thus supplied by this water, and since that time several main pipes have been laid to carry it into the liberties of Westminster."

When this was written, the Governor and Directors kept their office " at a coffee house in Ludgate Street where every Thursday they held a board. . . . The offices and servants belonging to the Company are a clerk and his assistant, a surveyor and his deputy ; fourteen collectors (who brought the rents collected to the Coffee-House) fourteen walksmen, who have their several walks along the river, to prevent throwing into it filth, or infectious matter ; sixteen turncocks ; twelve paviours ; twenty borers of pipes ; besides horse engines for boring of others ; together with a great number of inferior servants and labourers." In 1770 the Office in Clerkenwell was substituted for the primitive method of meeting here noted, and Mylne was its architect.

The literary history of the New River may be said to begin with Thomas Myddelton's pageant, devised for the day on which Sir Hugh's New River Head was opened and his brother Sir Thomas elected Lord Mayor ; it is an interesting fact that the Myddeltons, like the Mylnes, had each been distinguished in their own field for many generations. *The Triumphs of Truth* (1613) is a glorification of both brothers in as typical a City pageant as can be found, full of allegorical figures uttering the praises of the new Lord Mayor and his brother, and glorifying the New River ; its waters, as we shall see, were to be glorified a second time by Mylne himself, but the next poetical tribute to them is to be found in the work of the Quaker poet still known as Scott of Amwell, whose poem was thrice reprinted in 1776 ; a briefer poem is still to be seen engraved upon a stone set by Mylne's urn beside the infant river :

> " *Amwell, Perpetual be thy stream*
> *Nor e'er the Spring be less*
> *Which thousands taste who little dream*
> *Whence flows the boon they bless.*
> *Too often thus, ungrateful Man*
> *Blind and unconscious lives,*
> *Enjoys kind Heav'ns indulgent plan,*
> *Nor thinks of Him who gives.*"

Unlike his *Elegies*, which, as Dr. Johnson said, " could have been written by twenty people," these verses bear the stamp of truth and feeling, raising him above the " Scott, feeble but amiable " of Lamb's verdict. The Bard of Amwell for once has touched the heart.

Mylne's praise was more ambitious. The *Inscriptions for a Votive Urn at Amwell in Hertfordshire, by Robert Mylne, Esq., F.R.S.* appeared long after Scott ; its prose is heavy, its emotion genuine, and the Urn itself singularly graceful, its pedestal finely proportioned, its lettering excellent, and its situation as romantic as heart could wish. Below the steep and wooded slope of Amwell Hill, with its lovely church and churchyard, runs the New River, forming, in Mylne's own words, " an ample pool or piece of water ; in which there is an Islet, of an elongated form [a pointed oval, in fact], having the stream gliding on each side of it." The exquisitely kept turf, the trees still including Mylne's " weeping willow drooping its melancholy boughs," the smooth clearness of the water, moving without a ripple on its way, make up a memorable picture, and on the Islet stands Mylne's Urn itself, and the little poem which he chose to set beside it.

Below the river a shady road descends Amwell Hill; at one point, almost opposite the Urn but on the other side, the green waste beside it is broken by steps between pillars ; descend them, and at your feet bubble up the springs of Amwell—Emma's Well—named, as Mylne has it, not too accurately, from that " fair and sainted maid the wife of King Canute." The waters ripple up against walls shafted into four arms, backed by shrubs and (as the writer saw them) tall spires of lupins, pink, white and blue, shadowed by trees and casting bright reflections in the broken surface of the pool. To turn from the mirror-like smoothness of the river round Mylne's Urn on one side to the clear and bubbling waters on the other is to gain a new idea of beauty. Nowhere else, perhaps, can such a contrast be seen in so small a compass, water which is all movement, water which is all stillness, both undefiled and exquisite as when Lamb knew and loved them.

In 1800, the year of the pamphlet in which Mylne thus paid tribute to his Amwell, he built, in the churchyard above, a mausoleum, marked by the same classical qualities as the Urn itself. Its form is that of a Roman temple surmounted by an urn ; in the pediment a delicate relief shows a mourning woman seated by a trophy based on a Roman coin, as befitted one whose study of Antiquity was both exact and minute ; who the sculptor was has not been ascertained, but the design was Mylne's, and the same hand carved both urn and mausoleum. *Deo opt Mo Coemeterium pro se et suis dat dot dedicae Robertus Mylne MLCCC* runs the inscription, but though Mylne's family were buried here, he himself, as we have seen, lies in St. Paul's, next to the ashes of Sir Christopher.

SANITARY SCIENCE AND HYGIENE IN RECONSTRUCTION

Extracts from the CHADWICK TRUST ESSAY, 1943

By A. F. Russell [*A.*], *A.M.T.P.I.*

"Without Health there is no Wealth"

This axiom is as true to-day as it ever was, and needs to be constantly kept before us in the planning for reconstruction. Sir Edwin Chadwick fought against evils that to us are obvious shortcomings in physical environment, yet we, in our time, not only tolerate but continue to create conditions inimical to that standard of health which should be the unchallenged right of every baby born into this remarkable age of scientific and material progress.

Chadwick's labours on behalf of public health and preventive medicine had as their chief influence and continuous background, the effects of environment on health and mortality. It is difficult, if not impossible for us, who enjoy without question and often without thought, the tremendous benefits of water borne sanitation and piped supply of pure water, perhaps accompanied by constant hot water, to realise what it was like to live without them in "the good old days."

A considerable proportion of people in this country to-day, can however, more readily appreciate the measure of misery and injury to health that overcrowded conditions, damp dwellings, lack of sunlight and bad ventilation caused among the labouring classes of the 19th century. For all of these evils (albeit abated and ameliorated) and more besides, are still extant among dwellings and workplaces still in use and as far as is possible to see, likely to so remain for some time to come.

* * *

Existing Conditions: "To-day"

The scope and direction of the ideals of favourable influence of environment upon health differ in many respects from the aims of the sanitary reformers of the 19th century, but far as we have travelled along the road of public health, there is much to be achieved and many prejudices overcome before we can lay claim to a standard of success in our fields of endeavour, comparable to those attained by Chadwick and his co-workers.

Great Britain is and will continue to be a predominantly industrial country, with the bulk of its population living in towns. At the outbreak of war, no less than 80 per cent. of the people lived in urban areas. Existing centres of population, with their established industries, services and communications cannot readily be moved; the rehabilitation and rebuilding of these areas therefore constitutes the main work of physical reconstruction.

The problem of health is therefore primarily an urban one, although the rise in importance of the countryman in wartime will undoubtedly lead to greater attention to the needs of the "scattered one fifth" than has previously been the case.

* * *

The principal factors detrimental to health in towns and which are responsible for the higher town death rate which still prevails, can be grouped under five headings. They are:—

1. congested site development, preventing access of light, sunshine and air, and containing not even the most elementary amenities;
2. overcrowding of individual dwellings, occasioned by scarcity of accommodation and high rents;
3. atmospheric pollution, due to intensive multiplication of obsolescent methods of domestic and industrial heating;
4. adverse effects of noise, which although as yet incompletely determined, undoubtedly exists in varying degrees;
5. pressure of economic circumstances aggravated by town conditions; the average town dweller has none or few of the countryman's opportunities of augmenting his food or fuel supply at little or no cost.

None of these injurious influences are inherent in town living, neither are they confined to the largest conurbations. Official statistics do not support the theory that a higher standard of health can be attributed to towns of any one size, while many of the highly developed medical and public health services now enjoyed by the smaller communities were rendered possible by the initiative and resources of the largest towns.

In spite of the tremendous achievements in the housing field during the years between the world wars, the problem of the central areas, in which the majority of the population lived was hardly touched. Indeed, it is now admitted that the provision of vast areas of housing on the fringes of towns, unrelated to places of work and play, constitute a very mixed blessing and in some cases, a definite barrier to planning progress.

Healthier environment for large numbers of people has resulted from this quantitative provision of houses, but often at the expense of other equally important factors, such as relationship to work place, living costs, excessive travelling and social needs.

In recent years, journeys between home and work place have tended to increase, especially in the London area, where daily journeys of onerous dimensions are very common. To the average worker, long journeys have three results detrimental to health:—

(*a*) the cost of travelling is usually of such an order as to seriously affect the spending power on essentials such as food, etc. (It has been estimated that the average London working class family's expenditure on public transport is no less than 8 per cent. of the family income),
(*b*) the travelling conditions generally are uncomfortable, causing fatigue and nervous expenditure,
(*c*) leisure time is considerably curtailed.

In addition, there is the social defect of the worker (and employer) having no interest and taking no part in activities for the well being of the source of his living. This division of place of work and place of residence, which originated during the Industrial Revolution and has been intensified by progressive facility of travel is one of the principal causes of the unworthy state of our towns. It is permanent escapism of the worst order.

These, then, are the major defects from the health standpoint, of town development inherited from past periods. The coming period of reconstruction gives us the dual opportunity, (*a*) of eliminating all those features inimical to good health, which still exist and (*b*) of including the elements of environment necessary to the establishment of a higher standard of health, especially in central areas.

"To-morrow"

Authorities

To ensure that mutual appreciation of the interdependence of town and country that is generally lacking and to pool the benefits that each can confer on the other, the reorganisation of local government administration might be reconsidered in the light of modern needs.

A "combined" local authority, representative of town and country interests could co-ordinate the needs of contiguous areas to their mutual advantage. In the past, land surrounding a town has been considered as the natural place for expansion, irrespective of whether the land was valuable to the country or whether it was necessary for the recreational needs of the town. The importance of agriculture in the country's economy, of

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NOTE.—The numbering of the figures follows that in the complete essay, from which certain figures have been omitted in this publication. Certain whole sections of the Essay have been omitted, including those on Rural Housing and Bug Infestation. Major omissions are indicated by asterisks.

having market gardens on the best land adjacent to towns, of open country penetrating the town are now realised. The requirements of town and country are integral and must be administered by the same authority.

Practical advantages to the town would be :—

(*a*) environs could be planned so that town extensions are not continuous and that the country is not pushed further away from the centre,
(*b*) market gardens, orchards and dairy farms could be maintained in the closest possible proximity to the towns,
(*c*) a proper system of paths through agricultural country could be planned for the benefit of that considerable body of townsmen who delight in country walking,
(*d*) suitable surrounding villages might be developed as limited satelites.

The advantages would not rest entirely with the town ; the country would benefit by

(*a*) the linking up with the superior health and education services of the parent town,
(*b*) the encouragement of the town to the development of the maximum amount of country produce for its own consumption.

* * *

Furthermore, it is of the utmost importance to the purity of the water supply, that not only should sewerage disposal and water supply be administered by the same authority, but that the authority should control its water catchment area. Geological areas determined by watersheds immediately suggest themselves as the most appropriate "sphere of influence" of combined authorities.

Town Extensions

If authorities administered contiguous urban and rural areas, they could ensure by zoning or positive action, that extensions to the built-up area are planned (*a*) to keep each extension compact and self-contained and (*b*) to maintain if not improve the existing access to the countryside. Figure 1 shows diagrammatically, extensions to an existing town planned so that main roads are by-passed, each district has its own work places and community life, while enjoying ready access to the countryside. The wedges between the extensions should be rigidly protected against all building except that required for agricultural needs.

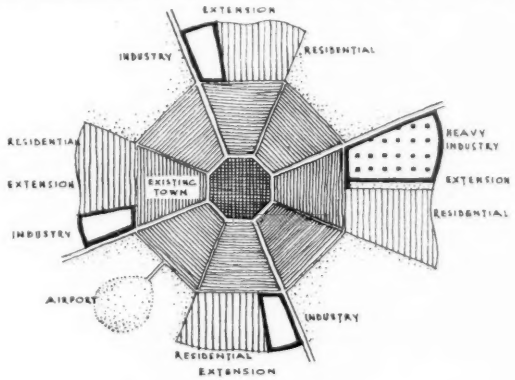

Fig. 1. TOWN EXTENSIONS

* * *

Local Communities

The breaking-down of the larger towns into districts of reasonable size, equipped with all facilities for day-to-day living is also necessary to the rehabilitation of congested areas. At the present time, large numbers of town dwellers have no focus of social life or local pride and tend to become disinterested members of a vast, incomprehensible mass of people. Community centres are not the only need in the approach to a more personal basis of life.

All towns of 30,000 people and over should be sub-divided into identifiable districts, each confined within such physical boundaries as parkways, watercourses, railways, etc., and provided with elementary and nursery schools, shops, church, open spaces and sports facilities, so that a virile social life would be possible, into which everyone who so wished could enter with enthusiasm.

The size of such districts would vary according to the characteristics of the town, but populations of 12,000 to 15,000 should not be greatly exceeded if local feeling is to be maintained. Each district should have a centre of social life which would perhaps best be known as "the Club," modelled on the most free of community centres and the Pioneer Health Centre at Peckham, on the basis of self management and self help. It should be related to the natural social centre of the district to which people gravitate for other activities of daily life and if it can be allied to playing fields or other sports centre, it will most nearly approach the ideal.

A well defined main and local road system is essential to the satisfactory establishment of communities of this character. Indeed, the construction of an arterial road system within the town would provide the germ of such communities, before their development on the lines suggested above.

For new development, especially housing, to be economic, efficient and healthy, large land units are a prerequisite. Never, since the 18th and early 19th centuries has urban building (as distinct from housing estates) been on a sufficiently large scale to provide its own amenities, while contributing to the ordered architecture of the town. If rehousing is to provide healthy dwellings at economic rents, larger land units than hitherto have been available will be needed to enable blocks of standardised plan and construction to be utilised in the solution of the problem. The piecemeal methods which have been necessary in slum clearance so far, have produced some schemes of high standard but which have also been characterised by their high cost and unprepossessing surroundings.

* * *

Industry

The problem of the small factory is an extensive and acute one. In the period between the end of the financial crisis and the opening of the re-armament programme, 79 per cent. of the total number of factories in this country employed not more than 25 workers each.

High concentration of light industry is undesirable from many points of view, including that of protection from air raid damage, but the grouping of small factories as suggested in Figure 2 has several advantages :—

(*a*) the factories are freed from the worst effects of congested development,
(*b*) natural lighting and ventilation conditions of a high standard are provided,
(*c*) access is improved and vehicular traffic accommodated off the roads,
(*d*) reasonable expansion can be provided for,
(*e*) mid-day feeding, washing, rest and first aid facilities can be provided to a degree impossible in all but the largest of factories.

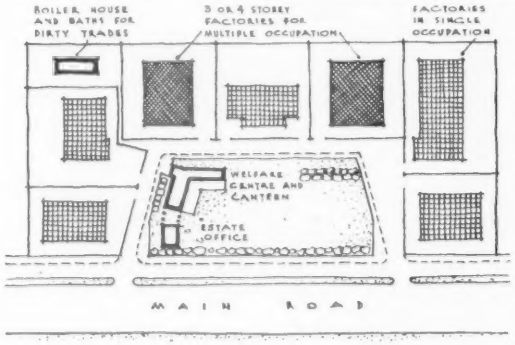
BOILER HOUSE AND BATHS FOR DIRTY TRADES
3 OR 4 STOREY FACTORIES FOR MULTIPLE OCCUPATION
FACTORIES IN SINGLE OCCUPATION
WELFARE CENTRE AND CANTEEN
ESTATE OFFICE
MAIN ROAD

Fig. 2. SMALL FACTORY ESTATE

Heavy industry presents a different problem ; the cost and disorganisation of moving it is prohibitive for all general consideration. It is invariably sited in relation to well developed transport facilities, either rail or water, sometimes both, which are essential to its functioning. That is no reason, however, for the continuance of the use of adjacent land for the housing of working folk to the detriment of their health and general well-being.

All houses within a reasonable distance, depending on local circumstances and degree of nuisance created by the industry, should be removed and replaced by playing fields and belts of trees. Environment is of less importance in the case of playing fields than in other forms of open space. Such buffers of open space would be of inestimable value to living conditions of the nearest dwellings, while providing much needed playing areas. Objections, might be raised on the ground of loss of rateable value, but other factors than finance must be equally considered in replanning. Perhaps the time will come when a town's mortality rate will be quoted before its rateable value !

Figure 3 illustrates the application of this proposal to a riverside industrial area in London, where facilities for team games are almost non-existent. It may be noted that the National Playing Fields Association standard for playing fields alone is 6 acres per 1,000 population, a very high figure seldom attained in large towns. London falls a long way short of this level with 0.47 acres per 1,000 persons which can be used for games.

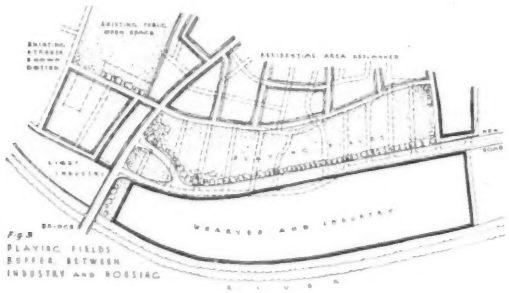

Fig. 3

Open Spaces

From playing fields to parks and gardens. Again the problem is one of space, the provision of which can be met in three ways :—

(*a*) by taking over all privately owned open spaces within town areas,
(*b*) by the conversion of all town cemeteries and burial grounds into public gardens,
(*c*) by vertical building development, not to increase densities, but to provide open space.

* * *

While it is almost impossible to provide a first-class park within a built-up area, the establishment of one on the outskirts of every large town would be of great benefit for healthy week-end and summer evening jaunts if well served by public transport at cheap rates.

As one of the very few examples of a park planned to cater for all tastes and ages, the Boschplan at Amsterdam, which was under development before the war, is worthy of the closest study. Over 2,000 acres in extent, it was designed to include a sports ground, bobsleigh track, boat race canal, walking and cycling tracks, woods and picnic slopes. The original site conditions were less favourable, except perhaps in the proximity of water, than could be found near most of our large cities. Figure 4 shows the general layout of the park and its relation to the city. The value to an industrial area of a park of this size and amenities needs no emphasis.

Amsterdam might have said that the health of its citizens was satisfactory and that they did not need additional facilities for outdoor recreation, for at the time when this ambitious project was conceived the city's crude death rate was 8.6 per 1,000 living compared with London's 12.3 or Liverpool's 13.2.

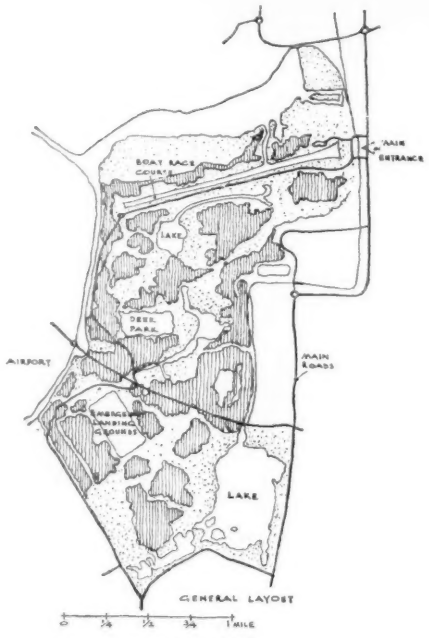

Fig. 4. THE AMSTERDAM BOSCHPLAN

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Schools

Central schools can never enjoy the lavish horizontal planning which has been so popular in the outer districts, but must make the most of available sites by vertical emphasis. Modern schools have tended to become extravagant when expressed in terms of building costs, but providing suitable land units are available, they should form admirable subjects for standardisation, with advantageous results in costs and speed of modernisation.

Even with the most courageous " loosening-up " of congested areas, school sites in the centre of towns must remain comparatively restricted. In order, therefore to (*a*) make the maximum use of the available site for play space, (*b*) improve the natural lighting and ventilation conditions of the lowest rooms and (*c*) minimise the distraction of noise, it is suggested that the whole building should be raised on " stilts."

Open Markets

Open markets with their lower prices are essential features of working class communities, but their usual location in busy streets does not provide the most hygienic conditions for the display of foodstuffs, while the stalls are a serious inconvenience to traffic and shoppers are exposed to unnecessary danger on the roadway. These little markets should be grouped off the main shopping thoroughfares in squares of their own where shoppers can wander in safety and dirt and dust from the road less liable to foul the food.

Stallholders and hawkers require accommodation for their stalls, carts and horses, for which provision is not usually made in redevelopment schemes. As a result they gravitate to other sub-districts, and find whatever accommodation is available. These stables, stores and general huckster's sheds tucked away in odd corners between the backs of houses give rise to unhealthy conditions and lower still further the usually meagre amenities of a neighbourhood.

It would be infinitely healthier and more sensible to admit of their place in the working class community and make proper provision for them. Nuisances and danger to health would be

removed and local appearance improved if groups of stables and stores were built by the local authority as part of redevelopment schemes. If let off and controlled as an extension of street trading regulations, the honest man and his animals would benefit while the unscrupulous trader would have less opportunity. The siting of such utility buildings would obviously have to be carefully related to neighbouring development.

* * *

Housing

Housing, by its intimate environmental influence upon everyone, young and old alike, is by common consent, the most important and urgent problem which will confront us after the war. There will be insistent demands for houses quickly, but unless these are carefully related to complementary and wider considerations, housing will not achieve its highest purpose of maximum influence upon good health in the next few decades.

Whether in the rebuilding of war-devastated areas, the re-planning of outworn industrial areas or the construction of new townships, certain fundamental requirements are common throughout. Strong and persistent efforts are being made to persuade the nation that two-storey semi-detached houses are the ideal (almost the only possible) form of housing. This theory does not, however, take cognisance of the fact that the problem of housing is chiefly one affecting the largest industrial conurbations and is nothing less than the rebuilding of the greater part of our built-up areas.

The problem is therefore a truly urban one of balance, of the equation of the ideal with the possible ; of density with open space ; of rent with income ; of accommodation with population.

Some reduction of present densities is required, but rebuilding (and extending) towns at 12-16 houses to the acre is neither desirable or necessary to the establishment of higher standards of healthy environment.

Housing is but one part of the whole structure of town development. It is not an entity in itself, but must be related to communications, workplaces, schools, shopping and social facilities and open spaces. It demands for its maximum convenience and amenity a living unit untraversed by major traffic routes.

While, in the past, the capital charge of houses on the outskirts has been considerably less than that of flats in central areas, this position may be considerably changed by the application of rationalised methods of construction to repetitive buildings. Traditional methods of building, satisfactory for special and isolated buildings are not justified in urban housing where exactly similar requirements are met by the provision of flats each designed for a special site,

The cost of housing is not only that of the cost to the owner, but to the consumer, who must of necessity calculate it on the basis of the whole cost of living at the location of the dwelling. Daily travelling expenses, relative prices of essential articles of food, etc., must be taken into account with the actual amount of the rent.

The speed at which housing can be produced is another primary factor, for the arrears of supply have been rapidly accumulating for four years and may yet continue to do so for some considerable period. In the meantime, sharing of dwellings, overcrowding and the habitation of houses long since condemned as unsanitary, continues with increasingly serious effects upon the health and happiness of a very large number of people. In addition, there is the replacement problem of a very much larger number of houses which are below the standards of convenience and amenity which should be provided to-day.

The problem is one of similar accommodation for similar people. The Englishman, for all his claim to independence, has in recent years accepted without question, standardised and mass produced articles of all kinds. Indeed, but for the development of this much-maligned feature of modern times, he would to-day have to forego, on account of excessive cost, many things that he now considers necessaries. Prefabrication certainly needs much more research and experiment before it can be considered a solution to the problem, but in the meantime, standardisation of dwellings, plans, sizes and equipment within a tolerable range would pave the way for further reduction of costs and increase in the speed of production.

Standardisation of plan is not new : bye-law housing, Ministry of Health type plans and speculative houses are examples of efforts in this direction. What is required is an extension of the process by industrial methods whereby various components of the dwelling are produced in different factories with the knowledge that they will take their proper place in the complete assembly. It does not matter what is mass produced, so long as the original model is the best of its kind that can be designed and made for its particular purpose.

Assuming that families with incomes up to £600 per annum are most in need of the economic provision of modern dwellings, it should be possible to design three types of flat for each of say six income groups to satisfy the majority of needs. The concentration upon production of these eighteen types of flat to cater for the requirements of average persons and families within this economic range would go far to solve the housing problem in central areas.

Types of Housing

While two-storey houses will continue to form the predominant type of housing in outer districts, they do not provide at the densities necessary in town areas, satisfactory living conditions. Here grouped housing in the form of flats or maisonettes with flats over are the only alternative to the interminable miles of closely packed houses which now constitute the usual development.

To keep the spread of towns within reasonable limits, the existing densities, if not maintained, must not be too drastically reduced. At the same time, living conditions generally, access of light, air and sunshine must be improved and the amount of open space adjacent to residential areas much increased. These objects can only be realised by higher residential building coupled with a limited amount of decentralisation.

There are three principal means of fulfilling this necessity for higher building :—

(*a*) Two storey terrace houses with 1 or 2 storeys of flats over. The larger families would occupy the houses and have the use of the garden, while the flat dwellers would be served by balconies and roof garden.

(*b*) Three or 4 storey flats without lifts : a height of 4 storeys is undoubtedly the maximum desirable height for staircase access flats.

(*c*) Five to 15 storey flats served by lifts : for young couples without children, single persons and elderly people living on their own, a proportion of these high flats would provide economical and satisfactory accommodation, especially if sited on the fringe of sizeable open spaces.

In all types of flat, gallery access should be avoided. They are noisy in use, unsightly in appearance and cause serious overshadowing and lack of privacy. In flats with staircase access, each landing should serve two or at the most three, flats.

* * *

The type shown in Figure 6 gives a high degree of privacy, while serving a small open working space. Where overshadowing is unavoidable, non-slip glass light panels incorporated in balcony floors would increase the amount of light penetrating to the room below.

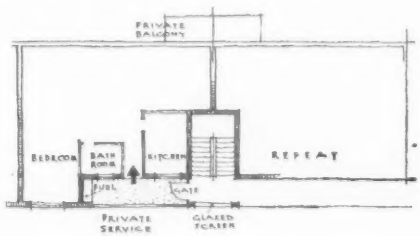


Fig. 6. SERVICE BALCONY ACCESS TO FLATS

The size, shape and position of windows should be determined by their purpose in relation to the room or corridor it is their function to light. Too often they are sacrificed to the dictates of elevational treatment, even to-day. Without being excessive, they must be ample. The health propagandist's slogan " Where there's dirt there's danger " might take as its housing counterpart " Where there's darkness there's dirt."

The value of flat roofs to concentrated development must not be forgotten. At present their comfortable use is minimised by smoke and the depressing outlook of pitched roofs, chimneys and other building excrescences on every hand. Every building designed with as much care for its roof appearance as for its street elevation is one more step in the direction of healthier environment and maximum utilisation of buildings. In housing, flat roofs could be designed and equipped for toddler's play spaces, and rest gardens and would increase the amount of " open space " available to residents by the amount of site cover of the buildings.

Quietness

The maximum use of sunlight and air cannot be made if traffic noises entering the dwelling are of unbearable intensity, necessitating closed windows. Motor traffic before the war was reaching a tremendous volume and is likely to increase still further when present restrictive conditions come to an end.

Noise from this source can be minimised by placing the blocks at right angles to the main road on the cul-de-sac principle, as shown in Figure 9 coupled with the maximum possible planting of trees and shrubs which are excellent sound absorbents.

At least one side of flats should look out on to communal or tenant's gardens, thereby enjoying reasonably quiet conditions and a pleasant prospect at the same time.

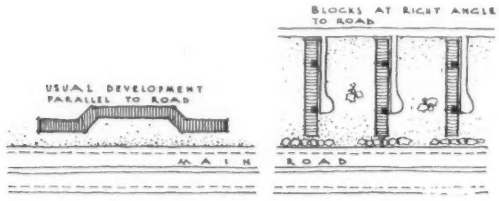


Fig. 9. PLANNING FOR QUIETNESS

Surroundings

All land surrounding the flats not required fo. . ... and paths should be divided for the healthy enjoyment of the tenants according to their respective needs. Thus there would be :—

(*a*) playgrounds for the younger children as far away from the flats as reasonably possible, while still being contained within the immediate vicinity.
(*b*) small garden plots for the enthusiastic gardeners. There would be less plots than tenants, so that only those who like gardening for its own sake need be burdened with the work.
(*c*) grassed areas and small paved rest gardens with seats for those who like to gossip.

Open space laid out for appearance and not use, should be kept down to the minimum and limited to road frontages.

Internal Details and Construction

One of the most important objects of rehousing, after improvement in healthy conditions, is to reduce the amount of labour necessary to run each dwelling. The average working-class woman has always had to " manage," but the unpopularity of domestic service to-day demands the maximum possible attention to labour-saving planning and design (not necessarily gadgets) in all housing of the range we have under consideration.

Keeping a house clean is only one of a housewife's multifarious duties. Looking after her husband and children, shopping, cooking, washing-up, washing and mending of clothes, all take up many hours a day. In most cases, some of these exacting jobs are skimped or omitted altogether for lack of time or sufficient energy.

Furthermore, it is unreasonable from the woman's point of view and detrimental from the socialogical standpoint that a large section of the nation's womanhood should be almost completely concerned with domestic affairs to the exclusion of public activity and responsibilities. In fact, it is certain that the married women of the post-war years will demand more time for outside life. There is no merit in work itself. The dwelling, its equipment and furniture must be designed to eliminate all unnecessary tasks and ease the work on all necessary ones.

Grouped housing in flats offers the most advantages to the problem of easing the mother's work.

The number of dwellings in close proximity facilitates the provision of day nurseries, where mother can leave her children with the sure knowledge that they will be well looked after while she gets on uninterruptedly with housework, washing or shopping. A metered district hot water supply becomes a practical proposition, if planned in conjunction with a refuse disposal plant of the Garchey type. The latter has many advantages in flat development, but its initial cost per dwelling is high and there are objections to putting all refuse down the sink which is used for the washing up of food receptacles. The cost of installation could be much reduced and the convenience of the system little impaired if a sink container of the same type were accommodated off each intermediate staircase landing instead of in every flat. Each tenant would then have a small hygienic refuse bin to empty daily or oftener, by the simple process of walking up or down half a flight of stairs to the Garchey sink. This suggestion is shown in Figure 10.

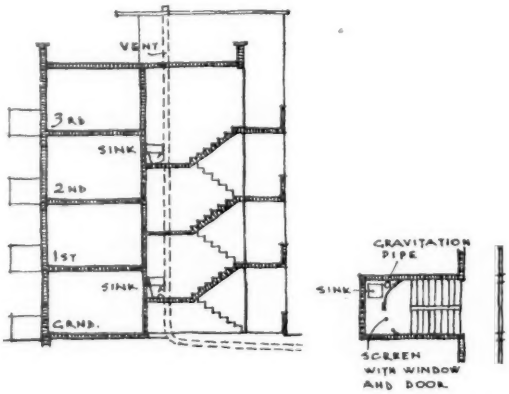


Fig. 10. MODIFIED GARCHEY SYSTEM

* * *

Internal noises are more readily transmitted in flats than in houses, but this nuisance can be much reduced by proper construction. Discontinuity of structure and cavity work offer the most economical means of ensuring tolerable conditions. Cavity walls have the added advantage of acting as thermal insulation of a high order. The following three principles of construction, should therefore be incorporated in the structure of flats :—

(*a*) cavity outer and party walls,
(*b*) floors, whether of concrete or wood spanning across the flat and not bridging the party wall cavity,
(*c*) the roof expansion joints to be placed over party walls to prevent the transmission of structure borne noises.

While it will not be possible, on account of cost, to incorporate the principle of separate floor and ceiling construction in all flats every endeavour should be made to follow this important principle of horizontal insulation.

* * *

Daylight

The importance of the possible penetration of sunshine into most rooms for some period of the day is matched only by the

importance of comfortable working or living conditions by the penetration of daylight or "skyshine."

Investigations have proved that it is possible to establish rules for relationship between factors of building development, which would enable living and working conditions of a high standard of healthy amenity to be provided. These axioms are concerned with :—

(*a*) the penetration of daylight into rooms at given distances from the window for given window heights,
(*b*) the shape of the plan of the building,
(*c*) the space between buildings,
(*d*) the height of the buildings.

The improvement of habitable conditions in urban buildings is therefore an immediate physical possibility, but is governed by the following three important factors which still operate in opposition to their establishment :—

(*a*) the multiplicity of ownerships, irregular size and shape of plots, and the existing law of compensation for planning restrictions,
(*b*) the inherent desire on the part of building owners and the public generally to see buildings with accepted, impressive rather than functional qualities,
(*c*) existing planning and building legislation of a restrictive nature, in which regulations controlling proportion of site cover and maximum height according to type of building do not necessarily improve conditions which existed prior to rebuilding.

Scientific daylighting has as yet been scarcely applied to town development. The results of extensive research and experiment are now, however, being assembled and made available. There is no longer any excuse for empirical methods and their fortuitous results upon the efficiency of a building as the scene of human endeavour. The three obstacles to healthy conditions in buildings, cited in the last paragraph must be removed and advantage taken of the knowledge now available to create those better conditions to which there is no technical barrier. A comparison between typical development on separately owned land units and that possible under more progressive conditions is shown in Figure 13.

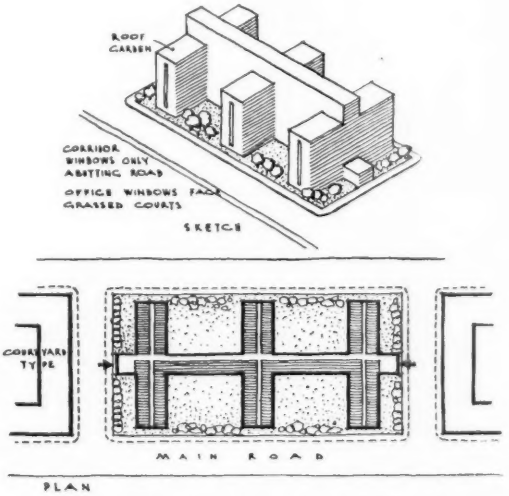


Fig. 13. OLD AND NEW TYPES OF COMMERCIAL BUILDINGS

Space and Noise

Space as a sound insulator can only be partially applied to town development, for it must take into account the needs of population density and the social and economic effects of a drastic reduction in that density. In other words, it must be equated with its antithesis—building development.

The cruciform plan, which lends itself admirably to commercial buildings, while giving less quiet conditions in any one place than the courtyard, gives immeasurably better overall conditions than the normal street frontage building. In situations where the restricted nature of the site necessitates building up to the boundaries, some improvement of conditions can be achieved by the building-over of the ground floor with a cruciform plan on other floors as shown in Figure 14. Ground floor conditions could be rendered tolerable by ventilating at flat roof level or by air conditioning, natural lighting in either case being provided by roof lights and glass brick ventilated external wall panels. Conditions on the upper floors would be further improved by the carrying up of the parapet well above ground floor to act as a buffer to the street noises.

Atmospheric Pollution

* * *

The category of fuel user likely to prove most difficult to reform is the domestic one. The British love of open fires, however inefficient they may be, is deeply ingrained, but the public must be made to realise the harmful effects of smoke concentrated over a wide area, by the omission of present-type fireplaces in all new construction, the installation of improved types in a lesser number of rooms than formerly, and by restrictive regulations applied in varying degrees to all urban areas.

It is suggested that smoke-restriction zones should be applied to the whole built-up area of a town, on the following lines. In the outer zone, a fairly high proportion of houses perhaps 50-70 per cent. would be allowed to contain open fireplaces ; in the intermediate zone, only open fireplaces of licensed design would be permitted ; in the central zone, open fireplaces of all types would be prohibited and all buildings heated by non-smoke producing central heating methods.

The domestic smoke problem is partly an economic one. Gas and electricity are more costly than solid fuels and therefore a serious bar to their more extensive use by working class people. One of the wider problems of town redevelopment will be the rationalisation of gas and electricity services in order to reduce the present costs and charges and introduce greater uniformity of tariffs with a view to the still more extensive use of these methods of heating.

As the atmosphere in towns becomes purer by virtue of the gradual abolition of smoke, so the attractiveness of living out of doors on all possible occasions will increase. There are many days throughout the year when for instance meals could be taken in semi-open surroundings if these were available. The placing of canteens, glazed on three sides so that at least one side is protected from the wind, on the flat roofs of commercial buildings suggests itself as a ready access of extending out of door living facilities. Other countries, with no better weather conditions than ours, make far more use of fine days for this sort of thing, than we. Favourable weather conditions are more frequently

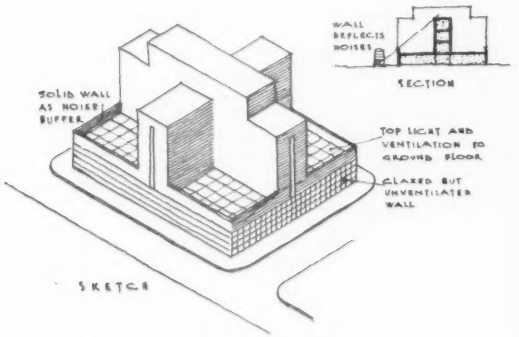


Fig. 14. OFFICE BUILDING ON A SMALL SITE

available than is perhaps realised; for instance, in a central London Borough last year there were no fewer than 162 working days, between March 1 and September 30, when the maximum outdoor temperature was 60° or more. On a large proportion of these days, meals could have been taken in the open or semi-open air.

Refuse Disposal

Houses will probably continue to be served for some time to come by some form of individual bin, emptied once or twice a week by the cleansing authority, but by improved methods. Future terraced housing must be planned to allow of the bin being emptied without the necessity of taking it through the house. This can be achieved in three ways, (1) by access passages between each pair of houses, (2) by access paths at the rear of houses and (3) by placing the kitchen and general service rooms in the front of the house, as illustrated in Figure 15. The last method has the added advantage of reducing the length of branch drains and number of manholes, thus effecting considerable economies over a large number of houses.

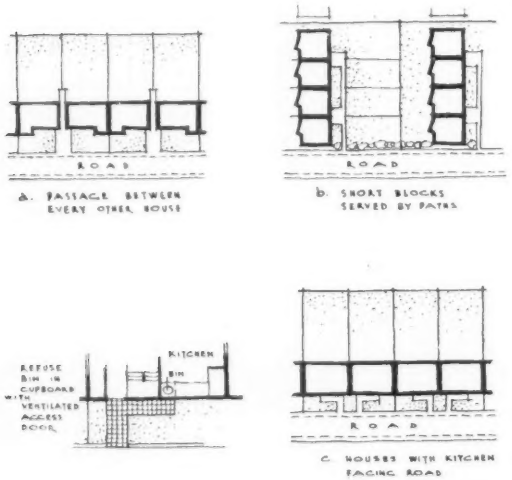


Fig. 15. ACCESS FOR REFUSE COLLECTION FROM TERRACE HOUSES

Some improvement in the use of bins when kept in the garden might be secured by the adoption of a type suggested in Figure 16. The time-saving practice of most dustmen of emptying the house bin into a wider mouthed receptacle for conveyance to the vehicle has unfortunate results on windy days, and should be regularised by the adoption of special house bins and collecting receptacles to obviate the nuisances which now arise. Needless to say all individual collection facilities should be designed to expedite and reduce the time required for collection, which would be reflected with advantage in the local rates.

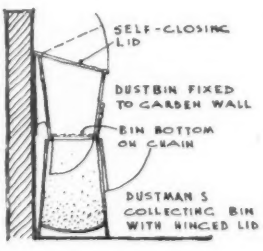


Fig. 16 IMPROVED DUSTBIN

The shute system with hoppers at each balcony level in blocks of flats has serious disadvantages and the method should not be continued in grouped development where the water carriage system is possible by virtue of the concentration of similar dwellings.

There should be provision in each neighbourhood unit of community development for a refuse disposal station, planned in conjunction with a district hot water supply plant with possibly a communal laundry. The water carriage or Garchey system has been used on only one major scheme of flats in this country, so that its development cannot be anticipated at the present time, but of its successful application on a compact site there can be no doubt. It would appear, however, that its evolution from being a self-contained scheme for each community unit to that of a central disposal works for the town, served by subsidiary collecting points, should be envisaged as indicated in Figure 17. While there is a limit to the length of pipe through which liquid can be pumped or forced by atmospheric pressure, local pumping on the sites of the original disposal stations would overcome the difficulty where gravitational flow is impossible.

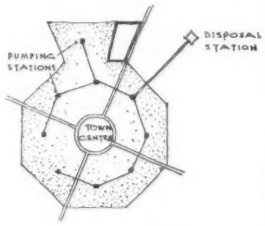


Fig. 17. GARCHEY REFUSE DISPOSAL APPLIED TO A TOWN

Personal Hygiene

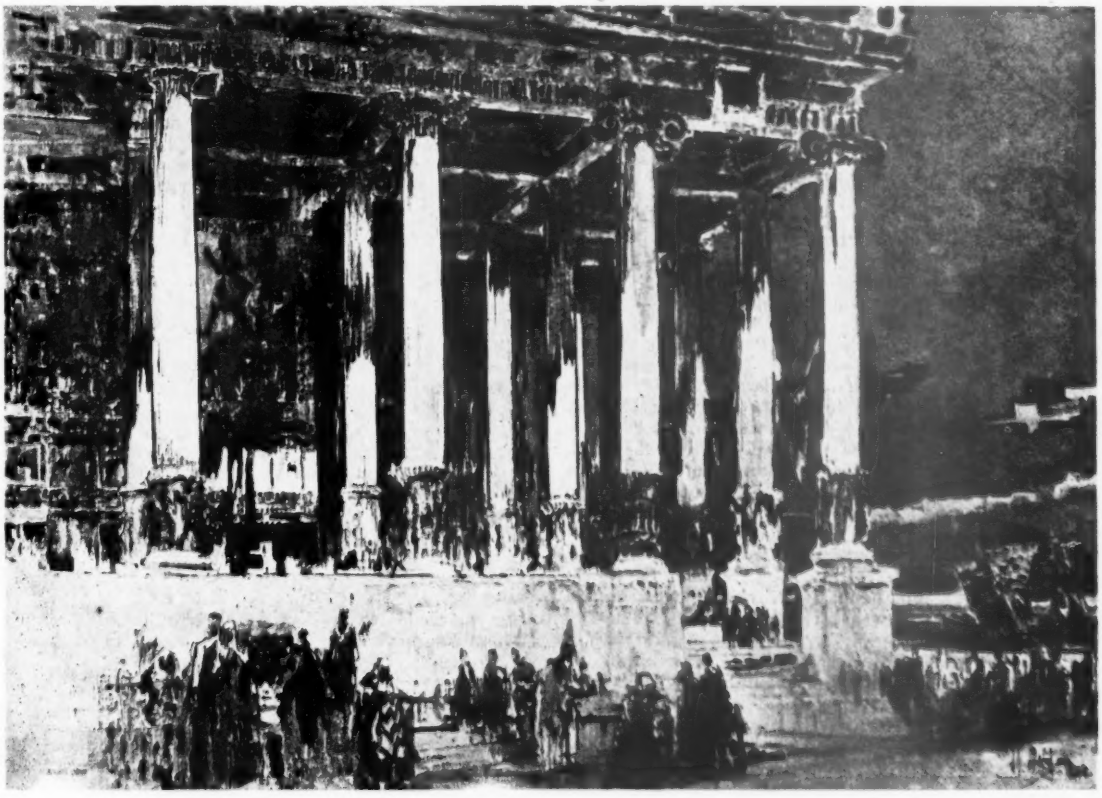
There seems to be no reason why the boon of bathing and changing facilities for miners at the pit head should not be extended to general industrial establishments engaged on work and processes of a dirty character. While few trades approach mining for uncongenial conditions, men in gas and cement works, potteries, foundries, etc., as well as dustmen, sewermen and refuse destructor workers and others should have facilities for removing the obnoxious effects of their day's work and changing their dust-laden clothes in properly equipped industrial baths. The largest establishments would be able to maintain their own baths, but smaller works, if reasonably concentrated, might combine for the purpose of providing bathing and other welfare measures.

POST-WAR HOUSING: A JOINT CONFERENCE

A joint conference was held on five occasions in 1943 between members of the R.I.B.A., the National House Builders' Registration Council and the Building Societies Association. The Conference terms of reference were to consider by what means the improvement of housing standards could be best effected after the war; to consider the availability of building materials in the immediate post-war years; to consider how the procedure of the approval of schemes can be improved and to investigate other matters relating to post-war housing of interest to the parties to the Conference.

The chairman was Mr. S. C. Ramsey [*F.*], vice-chairman of the Abbey Road and National Building Society. The R.I.B.A. representatives were Mr. C. H. James [*F.*], Mr. A. L. Roberts [*F.*], and Mr. C. D. Spragg.

Full reports of the Conference have been published in the technical and national Press and copies of the Report issued by the Conference can be obtained from the Building Societies Association, 14 Park Street, N.2.



Two pictures from the Walcot Exhibition. *Above*, part of the panorama of the diverted River Thames. *Below*, The Temple of Diana at Ephesus.

Obituary

JOHN BILSON

The death of John Bilson, on December 15, 1943, removed one of the last survivors of a generation of architect-antiquaries which included J. A. Gotch, Harold Brakspear and W. H. Knowles, " himself not least, but honoured of them all." Born at Newark-on-Trent, on September 23, 1856, he was trained for his profession in the office of Mr. W. Botterill, of Hull, the head of a firm which he eventually joined as a partner. He was admitted an Associate of the Institute in 1881, and a Fellow in 1911, and transferred to the Retired Fellowship class on his retirement from practice in 1930.

His architectural work, at first undertaken in building and repair of houses, became specially concerned with secondary schools. A well-known example of this is Hymers College, at Hull, on which he founded a reputation which brought him other work of a similar kind. He designed and carried out new buildings at Grantham, Rossall, Bromsgrove, Bridlington and other schools, and added to the House of the Resurrection at Mirfield, a block for the accommodation of guests attending retreats. Repair of churches was a work after his own heart, which he executed with a conscientious avoidance of the obliteration of ancient features by the introduction of new. A long list of churches in Yorkshire, beginning with the two great churches at Beverley, and including other buildings of historic interest such as the Priory church at Bridlington and the ruined choir and chapter-house at Howden, bears witness to his thoroughness and skill in this branch of his profession. The church of St. Nicholas, Hessle Common, on the west side of Hull, was designed by him as a memorial to King Edward VII, a large building with a fine tower in which a free treatment of fifteenth-century Gothic is used with a thoroughly modern attention to the practical requirements of clergy and congregation.

While his merits as an architect were well recognised, he developed unusual gifts of research in the history of his profession. From an early age his patience and accuracy in working out the architectural history of old buildings and reading the growth of their plan from its beginnings had attracted the attention of older antiquaries. In 1895 he was elected a Fellow of the Society of Antiquaries, and his great knowledge and power of lucid exposition were constantly called into service by the Royal Archæological Institute and the Archæological Societies of Yorkshire and the adjoining counties, to whose meetings and excursions he was a welcome visitor. Of a large amount of written work much was contributed to the periodicals of such societies, especially to the *Yorkshire Archaeological Journal*, which gave generous room to important monographs on Gilling Castle, St. Mary's at Beverley and the Romanesque church at Newbald. His analytic account of *The Architecture of the Cistercians*, written in the first instance with special reference to Kirkstall Abbey, for the Thoresby Society, was given a more general character in the *Archaeological Journal*. Although these and other papers deserve high praise for their power of observation and their noteworthy skill in sifting architectural and documentary evidence for conclusions which allowed no room for mere conjecture, Bilson's ability to propound and maintain a thesis on which, after mature consideration, he had convinced himself against all comers, was nowhere more clearly shown than in our own *Journal*. The papers entitled, *The Beginnings of Gothic Architecture*, of which the second was read before the Institute on March 20, 1899, not only set forth lucidly the three main steps in the development of Gothic architecture from Romanesque, but claimed for the cathedral church of Durham a place in their evolution which gave it a peculiar significance among European churches, as a Romanesque building exhibiting the essential principles of Gothic art already at work during the fifty years between 1093 and 1133. The controversy which this demonstration provoked with French archæologists, jealous for the priority of the Ile-de-France in the origin of Gothic, continued for years, and Bilson's theory was contested by eminent scholars, chief among them Robert de Lasteyrie and Eugene Lefèvre-Pontalis. Bilson, however, remained unmoved and won the respect and admiration of his opponents, who remained his firm friends. At the annual meetings of the Société française d'Archéologie he became a leading figure, and at their meeting at Rouen, in 1929, he was the recipient of the *grande médaille de vermeil* which commemorates the founder of the society, Arcisse de Caumont. In the type of mind trained in the École des Chartes he found the true complement to his own, severely logical, rejecting all that was irrelevant and fanciful in its pursuit of truth, and nowhere was he more at home than with these congenial companions, whose gradual accessibility, if only half acknowledged conversion, to his views on the vaults of Durham, gave him no small satisfaction. Several of his papers were translated into French for the *Bulletin Monumental* and other publications, and among these were his *Angers Cathedral, the Vaults of the Nave* (R.I.B.A. Journal 2d. ser. XIX, 737), which first appeared in a French translation by Lasteyrie in the *Congrès Archéologique* for 1910, and his last paper on the Durham vaults, contributed to the *Archæological Journal*, in 1917.

His controversial talent was also displayed in our Journal by his criticism of Mr. W. H. Goodyear's theory of architectural refinements and his closely argued answer to the novel reading of the history of St. Hugh's choir at Lincoln, produced by the late Francis Bond and Mr. W. Watkins. His loyalty to Durham, where he had many friends, was recognised in 1925, by the grant of the honorary degree of Doctor of Letters of the University. Six years earlier, however, the loss of his wife had checked his vigour and buoyancy of spirit, and his last archæological paper on the chronology of the nave of Wells Cathedral, in which he worked in close collaboration with the late Dean of Wells, was published in the year of his retirement from active life. For thirteen years more he lived at Hessle, near Hull, in the house which he had occupied ever since his marriage in 1901, subject to growing infirmities of sight and memory, but never losing interest in the profession and the architectural studies in which he had achieved well-deserved and, in the second case, pre-eminent distinction.

A. H. T.

B. PRIESTLEY SHIRES [*F.*]

Mr. Benjamin Priestley Shires, who died on 13 December, at his home, Whitchurch, Tavistock, at the age of 86, was one of the last of the older generation of West of England architects, and many of us will miss his kindly face and genial manner.

Mr. Shires was a Yorkshireman, and moved to the West Country when a young man and assisted in forming the Plymouth Branch of the Devon and Exeter Architectural Society (now the Devon and Cornwall Architectural Society), of which he was President in the years 1905 and 1933, and also Honorary Secretary and Treasurer for a long period.

During the last war he acted as Honorary Secretary of the Committee which undertook the civic survey of Greater Plymouth. He also secured the distinction of being Tite Prizeman in 1886. He was elected an Associate R.I.B.A. in 1893 and Fellow in 1935.

E. G. C.

MATTHEW J. DAWSON [*F.*]

Matthew J. Dawson died in his 69th year on Christmas Eve, 1943.

He was trained at the Atelier Laloux in Paris and after passing his final examination was elected an Associate in 1907 and a Fellow in 1921.

For a time he was on the architectural staff of the London County Council, and had been in private practice before 1914, but it was in 1919 I first met him when appointed a member of the Panel of Architects for the Improvement and Housing Schemes of The Borough Council of Hammersmith, in which we worked together with Henry T. Hare and Granville E. S. Streatfeild.

During that period he designed several houses at the Hampstead Garden Suburb, branch banks for the National Provincial

Bank at Finchley, Croydon and Chelsea, two blocks of flats in Westminster, namely, North Court, Great Peter Street, and Bray House, York Street, also further blocks of flats at Richmond and Basingstoke ; one of his most interesting works was the hotel on Burgh Island, Devonshire, and during the present war he completed a block of offices in New Street, E.C.

He was the senior lecturer at the Bartlett School of Architecture, University of London, from 1929 to 1939.

At the Institute he served on the Architects and Builders Consultation Board and the Architects and Operatives Consultation Board, in both cases from 1929 to 1932, on the London Building Act Committee from 1929 to 1930 and the Conditions of Contract Conference for 1928-29.

His work and more particularly his detail showed originality and an aptitude in the use of the material selected and his treatment of brickwork was especially characteristic of this talent.

His remarks on any problem would always give a fresh view as his observation and critical faculties were acute.

At the same time Dawson was generous in his recognition and appreciation of the value of good work by his fellow architects.

He was one of the collaborators in the production of the isometric section of St. Paul's Cathedral showing the detail construction of that magnificent conception.

He was one of the firewatchers at St. Paul's and had a wide knowledge of architecture in general and more particularly of Wren's work.

J. Ernest Franck.

BOOKS

Traffic and Parking Study. A Plan for the Improvement of Conditions in the Central Business Areas of New York City. 4to. 165 pp. 63 illus. Regional Plan Association, Inc. New York City. 1943. $4.50.

The Regional Plan Association of New York City, best known over here by its classic regional survey and plan produced in the twenties, has published yet another valuable report. The new volume contains a study of a specific problem which in no city has received the thought, attention or research it merits.

The main part of the problem is stated briefly and well in para. 216 of the County of London Plan, 1943.* The authors of this plan wisely say that " further research will be necessary before precise recommendations can be made." New York is more fortunate than London in having an association which was able to undertake such research and make detailed recommendations. The New York City Planning Commission, overburdened with day-to-day work and innumerable other problems, is the immediate beneficiary, but others will find the Report valuable because of its statements of fact and illustration of method.

Eighteen official agencies and twenty-six civic and business organisations collaborated in the project. Because of this participation action might result fairly soon after the war. Whether the action will be vigorous enough remains to be seen. The Report seeks a compromise on many points. This seems inevitable if an attempt is made to satisfy all the immediate interests of individuals and groups. But in the long run some " immovable objects " will have to be moved if we are to escape the underground burrowing so gruesomely suggested on Plate 1. Here the " rue corridor " is shown with four levels. We may be doomed to this if we fail to redevelop our cities in a much bolder and more comprehensive way. Existing street patterns are patently obsolete in the age of framed buildings and motor vehicles.

In the matter of road planning and building New York has pursued a vigorous policy in the last decade. It is far ahead of any other great city. But the skeleton of a modern road system which has now taken definite shape is like a main railway system with only old-fashioned halts and virtually no sidings. On Manhattan Island the West and East side highways are largely completed. They skirt the rivers and avoid the congested built-up areas. Soon after the war all parts of Manhattan will be within a mile of the express highway system. From the surrounding parts of the city or region you will be able to approach the centre at the comfortable cruising pace of the modern car. Once you leave the edge of the centre you will be engulfed by the old road system threading through the crowded blocks of buildings. Even before the war it would often take you more than half an hour to do the last mile and find a parking place—on the express highways you could travel twenty miles in the same time.

On a typical business day in 1940 over half a million vehicles converged on Manhattan's business centre. There they moved slowly—stopping, starting and stopping again. They were baffled by lights, one way streets, " no parking " signs and dozens of police regulations. Streams of pedestrians crossed their path at every corner. This is the problem the Report examines—one of the major problems in every city.

The presentation of the Report is admirable. The main points are made clear by line diagrams, drawings and photographs. The survey is very complete, as much information was already available. The movement of persons and vehicles is closely examined and the effect of existing trends noted. The highway system, both new and old, is surveyed, and a programme to expedite movement of vehicles is suggested. The movement, loading and unloading of freight has been considered in detail and recommendations made that existing regulations should be amended to enforce more strongly the provision of adequate off-street loading facilities. Perhaps the most important chapters are those which deal with parking. The survey of this particular essential clearly shows the inadequacy of existing provisions, the effects on business, and states the needs of the parker. The legal and economic aspects of the parking problem, complicated as they are anywhere, are sorted out and reviewed. A chapter is devoted to a comprehensive plan for the parking and storage of vehicles. Lastly, the poor pedestrian and his requirements are considered.

A summary of findings and recommendations is included at the beginning of the Report. Reading these five pages only, a brief précis of a work on one part of one of the hundred and one planning problems of a great city, at least helps one to get a truer perspective of the vast problems awaiting solution at all levels of planning.

Gordon Stephenson [*F.*].

A Handbook of Greek and Roman Architecture. *By D. S. Robertson. (2nd Edn., xxvi + 407 pp. Cambridge University Press. 1943. £1 11s. 6d.)*

Since its first publication in 1929 Prof. Robertson's book has secured an established reputation. As a scholarly presentation of a vast subject in one volume at a reasonable price, it has met a steady demand from students in Schools of Architecture. In the preparation of this second edition the author explains regretfully that he has had no opportunity for the complete overhaul, amounting even to re-writing, that he had hoped to achieve. The result is that the whole of the previous text and illustrations have been left as they were ; the only additional material consisting of footnotes in square brackets, suitably related to the Preface, Bibliography and Index. The remarkable feat has been accomplished of having an exactly similar number of pages of text in the two editions, by making use of all available blank spaces at the ends of chapters ; the only drawback—in any case slight and unavoidable—being the necessity of referring to several pages back or forward from a marking in the text. Equally ingenious is the maintenance, intact, of the original bibliography without additions, but with asterisks to show at a glance where notes in square brackets, referring to the necessary pages of text, can be looked for. To the ordinary architectural student the book will remain practically as before ; those who wish to go deeper will find, from the above-mentioned indications, the up-to-dateness they might expect. All the new footnotes should be scanned, as some of them disclose things of the first importance ; for example, the added light that has been thrown on the façade

* *County of London Plan.* Prepared for the London County Council by J. H. Forshaw [*F.*], and Patrick Abercrombie [*F.*]. Macmillan & Co., Limited, London, 1943.

of the "Treasury of Atreus." Rightly, attention has been drawn to Lucy Shoe's invaluable plates of Greek mouldings.

However much we may share the author's regret at the loss of new material in the text, we can realise the magnitude of the problem to author and publisher alike, and be grateful for the ripe scholarship that has informed the Notes. It is only occasionally that a book like the first edition of this one is produced: to write and illustrate a complete history of Greek and Roman architecture in the compass of a single volume of reasonable proportions is, as the author himself would be first to realise, a problem that is next to impossible of solution, but it has been solved here as completely as one could ever expect. For the only work that can be compared with Prof. Robertson's in English, by Anderson, Spiers, Dinsmoor and Ashby, two volumes were employed. It is not derogatory to either to say that the two works are conplementary to each other. To steer a middle course through the almost overwhelming sea of material in classical architecture is no light matter, yet Prof. Robertson's soundness of judgment has been proved over and over again. It is easy to say that this or that ought to have been included or treated differently, but it is wiser to recognise and make use of the amazing amount that is so skilfully marshalled and, on the whole, so justly presented.

The author is to be congratulated on his footnote method, which, for the architectural student in search of style, does not sensibly augment the high degree of specialisation that is a quality of the text; a quality one would expect when it is realised that the book is also meant to serve the needs of advanced students of archæology in the Universities and elsewhere. The main groundwork is secure as a presentation of architectural fact: the wonderful bibliography is something that no serious student of the subject can afford to do without.

THEODORE FYFE [*F.*].

Accessions to the Library

1943-44—II

Owing to the urgent need to economise space this list now records only new publications, excepting old publications having reference to current demands, e.g. on planning and topography. The others are summarised at end under "Older Works."

For economy of space the following also are now generally excluded from the list: (1) Year-books, lists of members, &c.; (2) extracts from periodicals, and reprints from periodicals which, being in the library, are noted in the REVIEW OF PERIODICALS; *(3) Government leaflets of slight or transitory interest. Full particulars are always available in the library.*

Books presented by the publishers for review marked R.
Books purchased marked P.
**Books of which there is at least one copy in the Loan Library.*

ARCHITECTURE

72

AKADEMIYA ARKHITEKTURY S.S.S.R. [U.S.S.R. Academy of Architecture]
Sbornik rabot [collected works]. i. [Arts. by N. Bylinkin and others.]
10″. 224 pp. Moscow. 1940.
Presented through the U.S.S.R. Society for Cultural Relations with Foreign Countries.
Inf. file

R.I.B.A. 72 : 016
A Short list of books on architecture and planning. Compiled for teachers and school use and the general public &c.
pam. 11″ × 8½″. [Lond. 1943.]

AKADEMIYA ARKHITEKTURY S.S.S.R. 72 : 016 (47)
Bibliografiya po arkhitekture [bibliography of architecture]. Ukazatel' neperiodicheskikh izdanii na russkom yazyke [index of non-periodical literature in the Russian language]. Z. D. Vinograd, compiler. N. E. Rogovina, ed.
10″. 196 pp. Moscow. 1940.
Presented through the U.S.S.R. Society for Cultural Relations with Foreign Countries.
Inf. file 72 : 061.2

KOCHER (A. LAWRENCE) *and* DEARSTYNE (HOWARD)
The Architectural center. An organisation to coordinate building research, planning, design, and construction. (*From* New Pencil Points, July.)
pam. 11¼″. n.p. 1943.
Presented by the Authors.
Inf. file 72] 37

R.I.B.A.: CONFERENCE ON TEACHING OF ARCHITECTURAL . . . [APPRECIATION]
[Press notice.] For information &c.
dupl. typescript. 13¼″. [1944.]

BOLITHO (HECTOR), *editor* 72 : 655.41 B (09)
*A Batsford century. The record of a hundred years of publishing and bookselling 1843-1943 [B. T. Batsford Ltd.]. [By H— B—, Harry Batsford, and others.]
10″. viii + 148 pp. + pls. Lond.: Batsford. 1943. 10s. 6d.
Presented by the Directors (2) as a "volume on the firm's history and associations, produced to celebrate its centenary".

HANNEFORD-SMITH (W.) 72 : 655.41 B (09)
Recollections of a half-century's association with the house of Batsford (1893-1943).
pam. 9″. priv. prin. 1943. *Presented.*

HISTORY

ATKINSON (T. D.) 72.03 (42.27)
The Sources of Hampshire architecture in past times: being random notes on the local style. (*From* Hampshire Field Club and Archæological Socy., Proc., xv, pt. 2.)
pam. 8¾″. n.p. [194—.]
Presented by the Author.

ROBERTSON (D. S.) 72.032.7/8
A Handbook of Greek and Roman architecture.
2nd ed. 9¼″. xxvi + 407 pp. + xxiv pls. Cambridge: U.P. 1943. £1 11s. 6d. R.
1st ed., 1929, is in Reference and Loan Libraries.

KIMBALL (FISKE) 72.034 (44)·77
The Creation of the rococo. (Pennsylvania: Philadelphia Museum of Art.)
12″ × 9″. xvii + 243 pp. + pls. [Pennsylvania:] the Museum. 1943. £3 3s. P.
72.034 (745) (42) + 72.036 (745)

HITCHCOCK (H. R.), *junr.*
Rhode Island architecture. (Rhode Island Museum Press [pubns.], vol. 2.)
11″ × 8½″. 70 pp. + (81) pls. Providence, U.S.: Rhode Island Mus. Press. 1939.
Presented by the Author.

DRAWING

LEE (L. A.) *and* REEKIE (R. FRASER) 72.064 : 744 + 72.064 : 69
* Descriptive geometry for architects and builders.
8½″. viii + 224 pp. + pls. Lond.: Arnold. 1943.
Presented by Mr. Reekie [F.], joint author (2), and P.
Inf. file 92 W
72.064 : 92 W

R.I.B.A. (dupl.) Inf. file × (064)
[Exhibitions.] William Walcot 1874-1943. . . . An exhibition . . . 1944. [Biog. note and catalogue.]
dupl. typescript. 13¼″. 1944.
With 11 phots. of subjects (attached to I.F. 92 W copy).

PROFESSIONAL PRACTICE

72.08 : 34 (94.5)

VICTORIA, *Australia*: PUBLIC WORKS DEPARTMENT—BUILDING REGULATIONS COMMISSION
Report.—Draft. Uniform building regulations. Victoria.
9¼″. 7 + 283 pp. [Melbourne. 1943.]
Presented by Leslie M. Perrott [F.] and partners, architects, Melbourne

CRESWELL (H. B.) 72.08 : 82–3
*The Honeywood file. &c.
Reprint (new form). 7½″. 226 pp. Lond.: Faber & Faber. 1929 (1943). 7s. 6d. R. *To Loan Library.*

HOPPUS ([EDWARD]) S.R. 72.083.123
Practical measuring made easy &c.:
Hoppus's Practical measurer; or, measuring made easy &c.
tall 16mo., 7″ × 2¾″. Lond. 1856.
Presented by Mr. S. T. Wyatt.
'New ed.,' 1806. already in Library.

MINISTRY OF WORKS 72.089
Control of civil building—Defence Regulation 56A. Application for building licence. . . . Notes for the guidance of applicants.

[Another ed. 'New, simplified application form,' *appended letter.*]
leaflet. 9¾″. [Lond. 1943.] R.
3rd ed. 1942, M. OF W. & BUILDINGS, is in library.

BUILDING TYPES
(CIVIL)

Inf. file 725.161 : 711.551.6 (42)
[GENERAL POST OFFICE : PUBLIC RELATIONS DEPARTMENT]
The Post Office in the replanning of towns, *cover title.* (PL. 81.)
pam. 9½″. [Lond. 1943.] R. (2).

SOUTHAMPTON HARBOUR BOARD 725.39 : 629.135.5 (42.27)
A Scheme for a sea aerodrome and air base combined with a land aerodrome at the Port of Southampton *&c.*
pam. 9¾″. + folding map. Southampton. 1943.
Presented by the Board.

D.S.I.R. : FOREST PRODUCTS RESEARCH 691.11 : 634.98 box
Leaflets :
725.4 : 674.04
No. 30. General observations on the design of timber-drying kilns. 1943.

WALDRAM (P. J.) Inf. file 725.4 : 696.92
*Daylight illumination in factories and workshops. (*From Junior Institution of Engineers, Journal and Record of Trans., liv, pt. 3.)
pam. 8½″. Lond. [1943.] P. (3).

AKADEMIYA ARKHITEKTURY S.S.S.R. 725.76 (47) : 712.21
Arkhitektura parkov [park architecture] SSSR. M. P. Korzhev and M. I. Prokhorova.
10½″. 139 pp. [Moscow :] Gosudarstvennoe Arkhitekturnoe I— *&c.* [1939 or after.]
Transferred as gift from library of the Society for Cultural Relations with the U.S.S.R.

LIVERPOOL PHILHARMONIC SOCIETY 725.81 (42.72 L)
The New hall of the L— P— S— Ltd. . . . 1939. [Opening.]
Architect : Herbert J. Rowse, *&c.*
10¾″. (20 p.) n.p. [1939.]
Presented by Mr. Rowse [F.]

(RELIGIOUS)

DO COUTO (ANTONIO) 726.5 (469 L)
A Igreja do Menino Deus [church of the child God] [Lisbon]. (*From* Olisipo, *journal*, No. 16.)
pam. 10″ × 7¾″. Lisbon. 1941.
With leaflet, plan, inserted.
Presented by Senhor Do Couto, the Author.

(To be continued)

Review of Periodicals

1943-44—I, *concluded*

ART (general), ALLIED ARTS

TOWN AND COUNTRY PLANNING, *1943 Autumn, pp. 132— :*
Council for Education in Appreciation in Physical Environment : article descriptive of work in popular education in planning and architecture, by C. B. Willcocks [*F.*].

ARCHITECTS' JOURNAL, *1943 Nov. 18, pp. 381-2 :*
Commercial design to-day in Sweden ; by F. R. Yerbury.

ARCHITECTURAL FORUM (New York), *1943 July, pp. 100-2 :*
"Demountable furniture," designed for ease in packing and export transport.

FORM (Stockholm), *1943, No. 5, pp. 88-92 :*
Art and the structure and shape of chairs. Article by G. A. Berg on the relation of chair design to the form characteristics of the time.

BUILDING (generally)

ARCHITECT AND BUILDING NEWS, *1943 Aug. 20, p. 120 :*
"Waste." Note by E. Gunn [*A.*] on economy in construction.

JOURNAL OF THE INDIAN INSTITUTE OF ARCHITECTS (Bombay), *1943 July, pp. 11-18 :*
Report of Government committee of enquiry into collapse of multi-storey reinforced concrete building during construction.

SOUTH AFRICAN ARCHITECTURAL RECORD, *1943 Aug., pp. 195— :*
War-time building in South Africa. Building Control Investigation Section 1st Report. Reinforced concrete trusses for huts. Details of experiments ; substitute and economy materials for ceilings and floors ; corrosion prevention ; timber as reinforcement in concrete.

ARCHITECT AND BUILDING NEWS, *1943 Aug. 20, pp. 121-2 :*
Post-war building technique : extracts from paper by R. Fitzmaurice, of Building Research Station, to Manchester School of Architecture.

BUILDER, *1943 Sept. 17, p. 239 :*
"The future of building" : address by L. Wallis, President, National Federation Building Trade Employers. Largely on building costs.

STRUCTURAL ELEMENTS

PROCEEDINGS OF AMERICAN SOCIETY OF CIVIL ENGINEERS, *1943 June, p. 927 :*
Application of soil mechanics in designing building foundations : discussion.

JOURNAL OF INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS, *1943 August 17, pp. 68-79 :*
Modern conceptions in design of retaining walls, foundations and earth banks, by W. H. Elgar, Deputy Borough Engineer, Cambridge.

ENGINEERING NEWS-RECORD (New York), *1943 July 15, pp. 72-3 :*
Deep R.C. footings built without forms.

JOURNAL OF THE ASSOCIATION OF ENGINEERS AND ARCHITECTS IN PALESTINE (Tel Aviv), *1943 June-July, pp. 1— :*
Floor, roof and wall constructions : new methods exhibited at war and post-war building exhibition, Haifa, including light and prefab. methods, pot and tile and reinforced concrete floors, especially as applied to small house construction.

ILLUSTRATED CARPENTER AND BUILDER, *1943 Sept. 24, pp. 1062-3 :*
Surface concrete and sleeper walls and piers for housing work, by R. V. Boughton. No. 2 in series Essentials and Economics of Construction.

CONCRETE AND CONSTRUCTIONAL ENGINEERING, *1943 Aug., pp. 243— :*
Charts for the design of reinforced concrete beams, by T. Garland.

SOUTH AFRICAN ARCHITECTURAL RECORD (Johannesburg), *1943 Sept., pp. 222-4 :*
Timberless roof experiments : article by G. Gale, A.M.Inst.C.E.

ARCHITECTS' JOURNAL, *1943 August 26, p. 142 :*
Wide-span light welded steel-frame roof for continuous process factory.

ARCHITECTS' JOURNAL, *1943 August 26, Information Sheet 907 :*
Prefabricated reinforced concrete pitched roof const.

ENGINEERING NEWS-RECORD (New York), *1943 July 15, pp. 69-71 :*
Timber rigid frames and trussed columns, using small members to build up wide spans ; *also* article on Heavy trusses, pp. 74-5.

ENGINEERING NEWS-RECORD (New York), *1943 July 29, pp. 64-7 :*
Heavy timber trusses carry timber arches, prefabricated 40-ft. span girders bearing ends 100-ft. span arches.

ENGINEERING NEWS-RECORD (New York), *1943 Aug. 26, pp. 62-5 :*
Timber arches for blimp dock (airship hangar) erected from mobile centering. Parabolic, 237 ft. span.

ILLUSTRATED CARPENTER AND BUILDER, *1943 Oct. 22, pp. 1190-2 :*
The future of the pitched roof. Review of report by National Pitched Roof Council, representing slating and tiling interests, on alternatives to timber for construction.

ARCHITECTS' JOURNAL, *1943 Aug. 12 and Aug. 19, Information Sheet 905, 906 :*
Pre-cast r.c. flat roof members : continuity reinforcement ; assembly and details pre-cast r.c. roof.

ARCHITECT AND BUILDING NEWS, *1943 Sept. 10, p. 159 :*
Eaves projection. Article by E. Gunn [*A.*], critical of "hen coop" type single-span roofs.

ILLUSTRATED CARPENTER AND BUILDER, *1943 Aug. 6, pp. 868-70 :*
Roof coverings : materials and types. No. 1 in new series.

ILLUSTRATED CARPENTER AND BUILDER, *1943 Oct. 29, pp. 1212— :*
Bituminous felt and ruberoid roofing, by E. Lucas. No. 12 in Roof coverings series.

ILLUSTRATED CARPENTER AND BUILDER, *1943 Oct. 15, pp. 1147-8 :*
Timber-framed ground floors for housing work ; by R. V. Boughton. Includes notes on foundations. Illustrated.

ILLUSTRATED CARPENTER AND BUILDER, *1943 Nov. 19, pp. 1294-6 :*
Floor boards : article by R. V. Boughton in Essentials and economics of construction series.

BUILDING, *1943 Aug., p. 213 :*
Lifts for post-war flats : article by B. E. Gunnell. Illustrated.

ILLUSTRATED CARPENTER AND BUILDER, *1943 Sept. 24, pp. 1064-6 :*
Hand-made doors. Construction of mock-Gothic doors.

KINDS OF BUILDINGS ; DURATION OF BUILDINGS

ARCHITECT AND BUILDING NEWS, *1943 Nov. 19, pp. 116-7 :*
Expectation of life—in buildings and building materials ; by E. Gunn.

BUILDING PRACTICE AND INDUSTRY

STRUCTURAL ENGINEER, *1943 Nov., pp. 436-53 :*
The structural engineer's place in the post-war world, by A. C. Bossom [*F.*], M.P. ; including housing and comparisons with post-1914-18 hsg.

KEYSTONE (Association of Building Technicians), *1943 Nov.-Dec., pp. 7-8 :*
Building technicians' charter : draft prepared by A.B.T.

PLANNING (P.E.P. Broadsheet), *1943 Sept. 28 :*
Labour in the building industry. An objective survey of organisation, with notes on war changes and work, union activity, etc.

ARCHITECTS' JOURNAL, *1943 Nov. 25, pp. 391-3 :*
Building industry organisation, by David Percival [*A.*], President, Association of Building Technicians. Commentaries by H. B. Bryant, Secretary, B.I.N.C., and H. Weaver, of A.U.B.T.W.

JOURNAL OF THE ROYAL ARCHITECTURAL INSTITUTE OF CANADA, *1943 Aug., pp. 120-3 :*
Works and buildings organisation in the Royal Canadian Air Force ; described by Group-Capt. F. H. Marani. Barracks, drill hall, etc.

STRUCTURAL ENGINEER, *1943 Nov., pp. 454— :*
Site organisation of a public works contract : discussion following paper by S. H. Hume, reported in S.E., May 1943.

MATERIALS

ARCHITECTURAL RECORD, *1943 Sept., pp. 83-8 :*
Dry-wall construction. Time-saver standards, by H. R. Sleeper. Analysis materials—fibre, gypsum, ply, asbestos, plastic. Construction details.

TIMES TRADE AND ENGINEERING SUPPLEMENT, *1943 Sept., p. 9 :*
Building materials. No. 4 in series "Looking ahead." Notes on prefabrication, cement and concrete, ply, bricks, in relation to post-war.

BUILDER, *1943 Nov. 12, pp. 394-7 :*
Alternative materials and methods of construction : conference at Civil Engineers' planning exhibition. Engineers', architects' and research scientists' viewpoints.

ARCHITECTS' JOURNAL, *1943 Nov. 18, p. 381 :*
Alternative materials and methods for building. Paper by G. G. Wornum [*F.*] to Institution of Civil Engineers. Plywood, plastics, etc., possibilities.

COUNTRY LIFE, *1943 Sept. 10, p. 472 :*
Ivy on house walls. Correspondence.

JOURNAL OF THE ROYAL SOCIETY OF ARTS, *1943 Sept. 17, pp. 563 :*
Insulating materials : notes by Dr. H. R. Fraenkel, of Wellington, N.Z., on previous papers in J.R.S.A. by A. C. Pallott, 1943, Feb. 5.

BUILDING INDUSTRIES SURVEY (B.I. National Council), *1942-3, Vol. viii, 2, pp. 44-6 :*
Stress grades of timber ; by E. H. B. Boulton. Proposals for increased use of stress grading in marketing, specification and bye-laws.

BUILDER, *1943 Oct. 8, pp. 287-8 :*
Dry rot in bomb-damaged houses, by W. P. K. Findlay, D.Sc., of Forest Products Research Laboratory.

COUNTRY LIFE, *1943 Sept. 10, pp. 458-60 :*
Building in chalk : a tested experiment in old tradition by R. O. Mennell. Detailed description and illustration of building technique.

BUILDING, *1943 Sept., pp. 244-5 :*
Concrete technology. No. 14 in Post-war construction methods series, by R. V. Boughton.

BUILDER, *1943 Sept. 3, p. 193 :*
Concrete mixes and costs. Correspondence by A. Nockels, with editorial note.

BUILDING AMERICA, *1943, vol. 8, No. 7 :*
Plastics. Special issue ; general promotion article illustrating manufacture and uses in, *inter alia*, building.

ARCHITECTURAL FORUM, *1943 Sept., pp. 6-7, 144 :*
"Plastic predictions" : illustrated description of technique and potential uses.

STRUCTURAL ENGINEER, *1943 Oct., pp. 387-96 :*
Practical use of plastics in building and constructional work, by F. S. Snow, M.Inst.C.E., M.I.Struct.E., Dr. A. Caress and Dr. R. J. Schaffer.

ARCHITECT AND BUILDING NEWS, *1943 Nov. 12, pp. 106-8 :*
Plastics and their place in post-war building : by H. H. Lusty.

BUILDER, *1943 Nov. 19, pp. 415-6 :*
Current trends in building plastics ; lecture by T. W. Kennedy. Possible uses.

BUILDING INDUSTRIES SURVEY (B.I. National Council), *1942-3, Vol. viii, 2, pp. 46-50 :*
The future of the brick industry.

ARCHITECT AND BUILDING NEWS, *1943 Sept. 3, pp. 142-6 ;*
BUILDER, *Sept. 3, pp. 176-7 ;*
JNL. R.I.B.A., *Sept. :*
Sawdust cement. Note from the Building Research Station Information bureau. Composition, manufacture of pre-cast products, etc.

ILLUSTRATED CARPENTER AND BUILDER, *1943 Sept. 3, p. 984 :*
Asbestos-cement tiles. No. 5 in Roof covering series. E. Lucas.

ARCHITECTURAL RECORD (N.Y.), *1943 June, pp. 81-4 :*
Paints : present and post-war, by Burr Price. Note on current research.

ARCHITECTS' JOURNAL, *1943 Nov. 25, Information Sheet 917 ; Dec. 9, I.S. 919 :*
Glass : permissible tensile stresses. (Dec. 9:) Rolled glass.

CONSTRUCTION (including PREFABRICATION)

COUNTRY LIFE, *1943 Sept. 3, p. 424 :*
Price of planning : pros and cons of standardisation [in architectural design], by N. Tiptaft.

ARCHITECTURAL RECORD (N.Y.), *1943 June, pp. 61-79 :*
Prefabrication : (i) Assembly lines reach out for markets [problem of distribution], by D. Haskell. (ii) Technical advances : present and potential [chiefly equipment, heating, etc.], by H. Vermilya, Technical Director F.H.A. (iii) List of prefabricators, illustrated by several American prefabrication systems.

ARCHITECTURAL RECORD (New York), *1943 July, p. 52 :*
Prefabricators view the future—and the architects. Figures from questionnaire on demand, architects' place, etc.

ARCHITECTURAL DESIGN AND CONSTRUCTION, *1943 Aug., pp. 156, 166-8 :*
The case for prefabrication—leader ; and Prefabrication in timber, by C. Sjostrom [*A.*]. No. 8 in Housing Forum.

ILLUSTRATED CARPENTER AND BUILDER, *1943 Sept. 3, p. 978 ; Sept. 17, p. 1035 :*
Prefabrication : broad views and common interests, by R. V. Boughton, A.I.Struct.E.

ARCHITECTURAL DESIGN AND CONSTRUCTION, *1943 Oct., pp. 206-15 :*
Some experiments in prefabrication and dimensional co-ordination. No. 1, at Coventry. No. 2, Tarran system. No. 3, "Universal" prefab. system. All well illustrated.

BUILDING, *1943 Oct., pp. 260-7 :*
Three prefab. systems (Clavering, Tarran and Universal), analysed by R. V. Boughton, with architectural commentary by J. Leathart [*F.*].

ARCHITECTURAL FORUM, *1943 Sept., pp. 65-8 :*
Prefabrication. "Modulok" system : compound sheet-insulation in interlocking frames, used for war housing and hospitals, etc. Photos, details.

ARCHITECTURAL FORUM (New York), *1943 July, pp. 71-4 :*
Prefabrication : proposed new system, by Bernd Wagner ; 12 ft. × 12 ft. timber frame. Fully described and illustrated, including details of variable house plans.

ARCHITECTS' JOURNAL, *1943 Sept. 9, pp. 176-7 :*
Prefabrication and building industry employment. Letter from L. Fawcett, Secretary, Amalgamated Union of Building Trade Workers, and comment by "Astragal."

JOURNAL OF THE ROYAL ARCHITECTURAL INSTITUTE OF CANADA, *1943 Aug., pp. 134— :*
Fabrication of laminated timber members ; principles employed in design and manufacture of built-up units. Article by V. Ketchum, M.Amer.Soc.C.E.

ARCHITECT AND BUILDING NEWS, *1943 Sept. 24, pp. 186-91 :*
Prefabricated components : domestic hot-water unit designed by W. Segal. Fully illustrated. Figures of capacity, etc. ; insulation details.

ARCHITECT AND BUILDING NEWS, *1943 Sept. 3, pp. 140-1 ;*
BUILDER, *August 27, pp. 134-5 :*
Tarran prefabricated houses : combined use of reinforced concrete slabs, resin-bonded ply and light steel. In BDR. : plans. Detail of plumbing unit and description.

ARCHITECTURAL FORUM, *1943 Sept., p. 45 :*
"Suitcase House" : demountable prefab. "homasote" house, 250 sq. ft., developed at request British Air Ministry.

JOURNAL R.I.B.A., *1943 Oct., pp. 275-8 :*
The pre-fabricated house in Sweden, by Anders Tengbom. Plans and photos.

ILLUSTRATED CARPENTER AND BUILDER, *1943 Sept. 24, p. 1076 :*
Bricklaying speed. Russian sthakonovite figures analysed.

NATIONAL BUILDER, *1943 Oct., pp. 55— :*
"Conslab" construction ; *in situ* poured concrete filling between permanent shuttering, described and illustrated.

CONCRETE AND CONSTRUCTIONAL ENGINEERING, *1943 Nov., p. 359 :*
Concreting in cold weather : note on German State Railways' practice.

ARCHITECTURAL CONCRETE (Chicago), *1943 Vol. 9, No. 1, pp. 22-9 :*
T.V.A. ten years of concrete, by H. B. Tour, Principal Architect, Design Department, T.V.A. Description and illustrations of dams and power-houses.

ARCHITECTURAL CONCRETE (Chicago), *1943 Vol. 9, No. 1, pp. 17-21 :*
Architectural concrete work [chiefly surface finishes] on Pentagon Building (War Department), Washington, by F. E. Ross. Illustrated.

PENCIL POINTS (New York), *1943 Aug., pp. 58-68 :*
Architecture and reinforced concrete, by P. Weidlinger ; technical and æsthetic possibilities. References to Maillart.

STRUCTURAL ENGINEER, *1943 Sept., pp. 327-68 :*
Tests on square twisted steel bars and their application as reinforcement of concrete, by Dr. K. Hajnal-Kónyi, M.I.Struct.E.

ENGINEERING NEWS-RECORD (New York), *1943 Sept. 9, pp. 104-6 :*
Electric pre-stressing of reinforcing steel used for small house construction : article by K. P. Billner. Reinforcements expanded by low-voltage current and fixed at expanded length.

SANITARY SCIENCE AND EQUIPMENT

JOURNAL OF THE R.I.B.A., *1943 August, pp. 223-5 :*
Technique of hygiene and sanitation, by F. L. Barrow, of Building Research Station.

AIR TREATMENT ENGINEER, *1943 Nov., pp. 177-80 :*
Evolution of piping and early domestic application. Short history of plumbing, Egyptian, Euphrates Valley, Roman. Illus. photo, plan Roman house.

CIVIL ENGINEERING, *1943 Oct., pp. 224-6 :*
Small schemes for water purification : infiltration galleries and sand filters ; by P. J. McCarthy.

ILLUSTRATED CARPENTER AND BUILDER, *1943 Sept. 17, p. 1054 :*
Sand filter for water. Detail of design and construction.

ARCHITECT AND BUILDING NEWS, *1943 Nov. 19, pp. 122-4 :*
Sewage disposal in rural areas : abstract of paper at Royal Sanitary Institute, by G. T. Cotterell, M.Inst.C.E.

ENGINEERING NEWS-RECORD (New York), *1943 Aug. 26, pp. 92-4 :*
Low-cost sewage treatment for a war plant employing 4,500.

ARCHITECTS' JOURNAL, *1943 Aug. 12, pp. 116-18 ; Aug. 19, pp. 135-6 :*
Natural lighting : the application of principles. Lecture to R.I.B.A. Architectural Science Board, by P. V. Burnett [*F.*]. Artificial lighting : application, etc., by R. Ackerley.

ARCHITECTS' JOURNAL, *1943 Sept. 9, p. 177 ; Sept. 23 :*
Daylight factors ; letter by H. J. Reifenberg. Also letter from P. J. Waldram [*F.*].

BUILDING (Sydney, N.S.W.), *1943 July 24, pp. 36-45 :*
Design of illumination equipment : paper to Illumination Engineering Society, Australia.

BUILDING AND ENGINEERING (Sydney, N.S.W.), *1943 Aug., pp. 37 et seq. :*
Fundamentals of illumination, paper by F. Breiesser ; Artificial light and its application to industry, by E. S. Glover. Papers to Illuminating Engineering Society of Australia.

BUILDER, *1943 Sept. 17, pp. 234-5 :*
Heating and ventilating : paper by A. C. Pallot, B.Sc., M.Inst.C.E., to R.I.B.A. Architectural Science Board.

ARCHITECTURAL RECORD (N. York), *1943 Aug., pp. 62-6 :*
Practical radiant heating for houses : article by R. V. Hall. Analysis of author's practice, illus. and plans.

HEATING AND VENTILATING ENGINEER, *1943 Oct., pp. 147 :*
Radiant heating : in Data for the forces series ; by L. J. Fischer, M.I.H.V.E.

INDUSTRIAL HEATING ENGINEER, *1943 Oct., p. 83 :*
Economics of enclosed space heating, by J. S. Cargill ; effect of black-out conditions, particular reference to hospital ward heating.

ARCHITECTURAL FORUM (New York), *1943 Aug., pp. 6-7 :*
Solar heating. Report of study made by Illinois Institute of Technology of house in latitude of Chicago, by architect G. F. Keck. Illustrations, plans, diagrams.

HEATING AND VENTILATING ENGINEER, *1943 Sept., pp. 85— :*
The use of bituminous coal in domestic heating plants, by C. Tasker. American experience, diagrams, illustrations of firing and types of stoves.

ILLUSTRATED CARPENTER AND BUILDER, *1943 Nov. 12, pp. 1260-2 :*
Central heating costs ; methods of calculating comparative costs using various fuels.

ARCHITECTURAL FORUM, *1943 Oct., p. 8 :*
Domestic heating stove. Tile coke stove placed centrally, with heated walls exposed to neighbouring rooms.

HEATING AND VENTILATING ENGINEER, *1943 Sept., pp. 83-4 :*
District heating. Editorial on general technical considerations.

BUILDER, *1943 Nov. 12, pp. 392-3 :*
District heating : scheme for Bristol, technical description, comparative costs of district and other forms heat supply.

JOURNAL, INCORPORATED CLERKS OF WORKS ASSOCIATION, *1943 Nov., pp. 121-2 :*
Post-war heating : exploiting one of our wastes. District heating from waste heat from incinerators.

JOURNAL OF THE INSTITUTION OF HEATING AND VENTILATING ENGINEERS, *1943 July-Aug., pp. 85-106 :*
Discussion on high-pressure hot-water heating.

HEATING AND VENTILATING ENGINEER, *1943 Oct., pp. 128-31 :*
Hot-water heating : advantages and disadvantages ; by L. Rayner.

ARCHITECT AND BUILDING NEWS, *1943 Sept. 3, p. 149 :*
A " modern " defect in chimneys, by E. Gunn [*A.*]—cracking and distorting of brickwork of flues from continuous-burning domestic boilers.

JOURNAL OF THE INCORPORATED CLERK OF WORKS ASSOCIATION, *1943 Oct., pp. 106-8 :*
Construction of smoke flues, by T. Potter. Smoky chimneys.

JOURNAL R.I.B.A., *1943 Nov., pp. 7-11 :*
Observations on the natural ventilation of dwellings ; by T. Bedford, D.Sc., C. G. Warner, B.Sc., of Medical Research Council, and F. A. Chrenko. Ventilation conditions and factors analysed. Illustrated by graphs and tables.

JOURNAL OF THE INSTITUTION OF HEATING AND VENTILATING ENGINEERS, *1943 July-Aug., pp. 119-26 :*
Air distribution, ventilation and unit heating, by S. Smith : advocates floor-level steam unit heaters. Describes system with reference to large aeroplane dope shed.

ILLUSTRATED CARPENTER AND BUILDER, *1943 Oct. 1, pp. 1099-1100 :*
Asbestos-cement roof ventilators ; in Roof coverings series, by E. Lucas.

PROOFING

ARCHITECTURAL REVIEW, *1943 Oct., pp. 111-2 :*
Man against fire : commentary on nine pictures from New York City Fire Collection.

JOURNAL, INSTITUTION OF CIVIL ENGINEERS, *1943 Oct., pp. 243-75 :*
Wind pressure on buildings, including effects of adjacent buildings ; by A. Bailey, M.Sc., A.M.Inst.C.E., and N. D. G. Vincent, B.Sc. Wind tunnel tests.

ARCHITECTS' JOURNAL, *1943 August 26, p. 147-; September 2, pp. 165-170:*
Planning against Noise, by D. Dex Harrison [*A.*], A.M.T.P.I. Pt. I. Site planning and street lay-out ; design of terraces, sound transmission through party walls. Pt. II (Sept. 2) : The individual building—flats, maisonettes, luxury flats, detailed plan analysis.

PENCIL POINTS (N.Y.), *1943 Mar., p. 25 :*
Heat insulation : experimental house, New York, built of canvas with cellophane windows.

HEATING AND VENTILATING ENGINEER, *1943 Oct., pp. 132-5 :*
Graphical heat-loss calculation ; by S. Sims, A.M.I.H.V.E.

NATIONAL BUILDER, *1943 Nov., pp. 74-6 :*
Heat insulation for existing houses.

JOURNAL R.I.B.A., *1943 Oct., pp. 279-81 :*
" Rebuilding our urban fauna " ; by Colin Matheson, B.Sc., F.R.E.S. Control of bird life and vermin.

A.R.P., WAR DAMAGE

ARCHITECTURE U.S.S.R. (Moscow), *1942 No. 1, pp. 9-14 :*
New Jerusalem monastery, 1656-1759, description and record of destruction by Nazis. Also photos and description of other war-damaged buildings.

INSTITUTE OF CIVIL DEFENCE JOURNAL, *1943 August, pp. 155-61 :*
Some aspects of Civil Defence in commercial premises, by R. A. Salaman, including notes on shelter design.

PLANNING, RECONSTRUCTION (physical and sociological)

ARCHITECTS' JOURNAL, *1943 Sept. 2, pp. 161-4 :*
Physical planning series No. 5. " Is Planning hostile to Freedom ? " by Dr. Karl Mannheim.

ARCHITECTS' JOURNAL, *1943 Sept. 9, pp. 179-182 :*
E. M. Nicholson, pre-war secretary, P.E.P., discusses " Bogie No. 2—planning can't be democratic," in Physical planning series, No. 6. Also Planning bibliography.

ARCHITECT AND BUILDING NEWS, *1943 Sept. 17, pp. 172-4 :*
Planning and control, by H. S. Goodhart-Rendel [*F.*] : reprint from TIME AND TIDE, Aug. 14 and 21. Plea for " planning " as expression of organised freedom.

ARCHITECTS' JOURNAL, *1943 Oct. 28, pp. 305-28, xxxviii :*
Planning for reconstruction : argument by picture and text of the field of reconstruction, the opportunity and the means. A stimulating and imaginative contribution to the pro-planning campaign.

SOUTH AFRICAN ARCHITECTURAL RECORD (Johannesburg), *1943 Sept., pp. 204-21 :*
Rebuilding South Africa. Special number reporting Exhibition and Discussion organised by South African Institute of Architects and Architectural Students' Society of Witwatersrand University. Emphasis on social and economic framework and low economic level of greater part of population holding back planning and architectural development. White and native slums illustrated.

TOWN AND COUNTRY PLANNING (generally)

ARCHITECTS' JOURNAL, *1943 Sept. 16, pp. 197-200 ; Sept. 23, pp. 215-18 ; Sept. 30, pp. 233-6 :*
Planning economics, by F. Schumacher. No. 7 in Physical Planning series. Planning pays !
Land ownership, in 2 pts., by E. S. Watkins, LL.B. No. 8 in series, under title " Bogie No. 4. Planning will end private property."

ARCHITECTS' JOURNAL, *1943 Oct. 7, p. 251 :*
Physical planning : summary of series (articles classified separately).

HOUSING AND PLANNING BULLETIN (National Housing and Town Planning Council), *1943 Dec.-1944 Jan. :*
National Housing and Town Planning Council conference, October. Full report speeches on topical planning & housing matters, Minister Town and Country Planning and Minister of Health. London Plan, by W. R. Davidge. The country pattern, by Gordon Payne.

JOURNAL OF THE TOWN PLANNING INSTITUTE, *1943 July-Aug., pp. 173-9 :*
T.P.I. annual general meeting. Speech by Minister of T. & C.P. on current planning policy.

BUILDER, *1943 Aug. 13, pp. 136-7, and subsequent issues :*
Town and Country Planning (Interim Development) Act, 1943. Commentary by W. T. Creswell, K.C. [*Hon.A.*].

ARCHITECTS' JOURNAL, *1943 Oct. 14, pp. 269-73 :*
Analysis of and commentary on Town and Country Planning (Interim Development) Act, 1943, by J. B. Wikely, barrister.

ARCHITECT AND BUILDING NEWS, *1943 Oct. 15, pp. 46-50 :*
Town and country planning ; speech by Minister of Town and Country Planning at National Housing and Town Planning Conference, Oct. 7. Outline of Government policy, reference Uthwatt. Local authorities' powers.

JOURNAL, AUCTIONEERS AND ESTATE AGENTS' INSTITUTE, *1943 Nov., pp. 397-401 :*
Town and Country Planning (Interim Development) Act, 1943. Annotation, by J. A. Rosevear, M.T.P.I.

ARCHITECTS' JOURNAL, *1943 Nov. 4, pp. 345-6 :*
Planning and building in the U.S. Paper to Architectural Association by Sir Ernest Simon.

TOWN AND COUNTRY PLANNING, *1943 Summer, p. 61 :*
Plans, laws, surveys and the Common Man, by W. A. Eden [*F.*]. The social implications of planning.

ARCHITECTURAL REVIEW, *1943 Oct., pp. 91-2 :*
The politics of planning, by Sir Richard Acland, young socialistic M.P. for Barnstaple.

ARCHITECTS' JOURNAL, *1943 Oct. 21, pp. 289— :*
Administration of national and regional planning legislation ; by Dr. W. A. Robson. No. 12 in Physical Planning series.

ARCHITECTS' JOURNAL, *1943 Nov. 4, pp. 335-8 :*
Administration of planning legislation—local government level ; by Dr. A. W. Robson. The pattern of post-war local government. Bibliography.

JOURNAL OF THE TOWN PLANNING INSTITUTE, *1943 July-Aug., p. 199 :*
Training the town-planner. Paper by W. B. Edwards, head, School of Architecture, Newcastle-upon-Tyne.

ARCHITECTS' JOURNAL, *1943 Nov. 18, pp. 371-4 :*
Training for planning ; by Max Lock [*A.*]. No. 15 in Physical planning series.

JOURNAL OF THE TOWN PLANNING INSTITUTE, *1943 Sept.-Oct., pp. 225-9 :*
Town and country planning school, Birmingham, August. Report of papers, including industrial dispersal ; by Prof. Sargant Florence.

TOWN AND COUNTRY PLANNING, *1943 Summer, pp. 56-60 :*
The Uthwatt Report and some criticisms, by F. J. Osborn. Report defended against five " radical " and nineteen " specific " criticisms.

BUILDER, *1943 Sept. 10, p. 217 :*
Uthwatt Report and planning : Memorandum by " certain members of Chartered Surveyors' 1924 Club " ; proposals on compensation and betterment.

BUILDER, *1943 Sept. 24, p. 258 :*
Uthwatt Report criticised by House Builders' Association of Great Britain.

TOWN AND COUNTRY PLANNING: PHASES OF DEVELOPMENT

ILLUSTRATED CARPENTER AND BUILDER, *1943 Aug. 13, pp. 894-6 :*
Selling or letting a house : article by E. S. Hartley [*L.*] on financial aspects of estate development.

PROCEEDINGS OF THE BRITISH SOCIETY FOR INTERNATIONAL BIBLIOGRAPHY, *1943 Vol. V, pt. i, pp. 7-15 :*
Classification of maps and plans for territorial planning, by Dr. E. C. Willatts, of Ministry of Town and Country Planning.

REGIONAL PLANNING

JOURNAL OF THE R.I.B.A., *1943 Sept., pp. 263-5 :*
Regional planning and development, by Dr. H. V. Lanchester [*F.*]. Analysis of survey schedules ; also comments on Scott and Uthwatt Reports. (R.I.B.A. Town and country planning lecture.)

PENCIL POINTS (New York), *1943 Aug., pp. 31-50 :*
" A technique for accelerated planning " : obituary of National Regional Planning Board, illustrated by the Board's last major works, the " Progressive Planning Studies " of Tacoma, Washington ; Salt Lake City, Utah ; and Corpus Christi, Texas. Valuable as studies of planning technique and " civic diagnosis." Fully illustrated, diagrams.

ARCHITECT AND BUILDING NEWS, *1943 Aug. 20, pp. 114-6 :*
Post-war London plans : a comparative review of progress with special reference to R.A., London Regional Reconstruction Committee and L.C.C. plans.

JOURNAL OF THE R.I.B.A., *1943 August, pp. 227-34 ;*
NATIONAL BUILDER, *1943 August, pp. 3, 6-11 ;*
OFFICIAL ARCHITECT, *Sept. :*
County of London plan : reviews, (in R.I.B.A. J.) by W. R. Davidge [*F.*] ; (in N.B.) by Richard Coppock, chairman of the L.C.C.

JOURNAL OF CHARTERED SURVEYORS' INSTITUTION, *1943 Sept., pp. 127-30 :*
County of London plan abstracted by F. Longstreth Thompson, P.Pres. T.P.I.

ARCHITECTS' JOURNAL, *1943 Sept. 16, pp. 207-8 ;*
BUILDER, *Sept. 10, p. 213 :*
County of London plan : extracts from critical speech by F. J. Osborn.

ARCHITECT AND BUILDING NEWS, *1943 Sept. 24, pp. 191-2 :*
County of London plan : memorandum by Town and Country Planning Association. Critical of densities and decentralisation proposals.

TOWN AND COUNTRY PLANNING, *1943 Autumn, pp. 113 et seq. :*
London and Home Counties planning : various articles on London County plan, etc. ; all attacking densities proposals.

JOURNAL OF THE TOWN PLANNING INSTITUTE, *1943 Sept.-Oct., pp. 234-9 :*
County of London plan : review.

ARCHITECTS' JOURNAL, *1943 Oct. 31, Nov. 4 ;*
BUILDER, *1943 Oct. 29, p. 347 :*
County of London Plan : critical articles, those in A.J. critical of Town and Country Planning Association's attack on the Plan.

HOUSING AND TOWN PLANNING NEWS-BULLETIN (Nat. Hg. & T.P. Council), *1943 Oct.-Nov., pp. 2-10 :*
Re-planning and decentralisation : the County of London proposals as a guide to other large cities, by W. R. Davidge [*F.*]. Paper for N.H.T.P.C. Conference, based on R.I.B.A. JOURNAL article, see *ante.*

ARCHITECTS' JOURNAL, *1943 Sept. 23, pp. 225-6 :*
BUILDER, *Sept. 24, p. 254 :*
Satellite towns in relation to the County of London Plan. Paper to Town and Country Planning Association, by R. L. Reiss.

REVISTA NACIONAL DE ARQUITECTURA (Madrid), *1943 April-May, pp. 171-238 :*
Regional plan for the Province of Guipuzcoa, including plans for San Sebastian, Tolosa, Segura and other towns and villages, all illustrated diagrammatically and by air views. Large folding maps and panoramas.

JOURNAL OF THE TOWN PLANNING INSTITUTE, *1943 July-Aug., pp. 184-198 :*
Planning a county, by Gordon E. Payne, County Planning Officer, Gloucestershire ; and discussion.

HOUSING AND TOWN PLANNING BULLETIN (Nat. Hg. & T.P. Council), *1943 Oct.-Nov., pp. 11-6 :*
The Country pattern, by Gordon E. Payne, F.S.I., etc., County Planning Officer, Gloucestershire. Special reference to Gloucestershire survey and planning.

TOWN AND COUNTRY PLANNING, *1943 Autumn, 108-12 :*
Planning in Cheshire, with particular reference to decentralisation ; by W. D. Chapman, President, T.P.I.

TOWN PLANNING AND RE-PLANNING (including WAR-DAMAGE RE-PLANNING)

ARCHITECTURAL FORUM, *1943 Oct., pp. 65 et seq. :*
Neighbourhood and community planning : various articles and detailed descriptions of projects :
Satellite dormitory to Washington D.C. ; 1,000 families in complete neighbourhood unit—schools, shops, housing in flats and small houses. Site and house plans by group of five architects.
War housing, San Francisco, converted for peace-time high-grade residential community ; house and site adaptation. Well illustrated. Architects : Campbell, Bohannon, Clark & Lloyd.
Terrace flats and small houses. Project for Chicago, by Skidmore, Owens & Merrill, on 1.8 square mile site. Site and house plans.
Obsolescent neighbourhoods : analysis by W. P. Crane, and redevelopment projects for New York, by Holden & McLaughlin. Fairly large areas make possible higher standard than normally possible.
Articles on Neighbourhoods and Shopping centres (communities of 50-2,500, 5,000 and 10,000 families) ; schools ; traffic (streets, parkways and side-walks).

JOURNAL OF THE AMERICAN SOCIETY OF ARCHITECTURAL HISTORIANS (Troy, N.Y.), *1943 Jan.-Apr., pp. 11-21 :*
Form and function in urban communities ; by Hans Blumenfeld. Analysis of essence of city.

PENCIL POINTS (N.Y.), *1943 Mar., p. 33 :*
" Cities should be places to live in," by Harry S. Churchill. Leader.

PENCIL POINTS (N.Y.), *1943 Mar., pp. 70-5 ; Apl. 76— ; May :*
Town planning : " Discussions on urbanism " : series of discussions at Columbia University. No. 1 : Planners' position in society to-day ; Ralph Walker. No. 2 : American standards of living, by Dr. C. E. A. Winslow, Professor of Public Health, Yale. No. 3 : Cities are for HUMAN beings, by Robert S. Lynd, Chairman, Dept. of Sociology, Columbia University. No. 4 : Urban economics and land values, by E. H. Spengler, Assistant Professor of Economics, Brooklyn College. No. 5 : Population distribution : centralisation *v.* decentralisation, by Lorin A. Thompson.

PENCIL POINTS (N.Y.), *1943 June, p. 79 :*
Discussions on urbanism at Columbia University. No. 7 : Transportation and urban development, by E. W. Williams, economist. No. 8 : Industrial planning, by R. P. Calkins, Professor of Business Economics, Columbia University. No. 9 : Recreation in relation to planning, by G. D. Clarke, Dean, College of Architecture, Cornell University.

PENCIL POINTS (New York), *1943 July, p. 69 :*
Discussions on Urbanism at Columbia University. No. 12 : W. H. Blucher on Official planning agencies. No. 16 : Wartime tools for post-war urban planning, by C. S. Ascher.

PENCIL POINTS (New York), *1943 Aug., pp. 69-74 :*
Discussions on Urbanism, 6th in series of Columbia University discussions ; includes war-time tools for post-war urban planning, by C. S. Ascher ; Planning, economic and social aspects, by Svend Riemer ; New York City and relation to post-war world, by J. B. Condliffe ; Urban redevelopment, by C. S. Stern (finance and legal questions).

ARCHITECTS' JOURNAL, *1943 Nov. 4, pp. 344-5 :*
" Citizen or peasant " : lecture to Town and Country Planning Association by Prof. C. H. Reilly. Analysis of urban quality. Critical of garden city planning as exemplified at Welwyn.

BUILDING, *1943 Sept., pp. 236-9 :*
Dispersal and the size of towns, by Arnold Whittick, with special illustration of Bishops Stortford, Herts (population 9,050), as nucleus of larger town.

ARCHITECTURAL FORUM (New York), *1943 July, pp. 75-86 :*
A programme for city reconstruction, by W. Gropius and Martin Wagner. Illustrated with example of how city reconstruction may be started from housing. Scheme produced by advanced Harvard students. Shows also housing plans and designs.

BUILDING INDUSTRIES AND SCOTTISH ARCHITECT (Glasgow), *1943 Oct., pp. 26-9 :*
Town planning of St. Andrews. Report of address by Sir James Irvine, Principal, St. Andrews University.

ARCHITECTURAL FORUM (New York), *1943 Aug., pp. 63-80 :*
" Planning with you." Discussion on planning publicity and reprint of project for a publicity booklet on city and community planning, for circulation in U.S. cities. An American " Living in cities."

TOWN AND COUNTRY PLANNING, *1943 Summer, pp. 52-5 :*
The living needs of big cities, by Robert Sinclair.

ARCHITECTS' JOURNAL, *1943 August 26, p. 140 :*
Charles Fourier. French 19th-century town planning and social reformer ; Note by " Astragal."

JOURNAL OF THE AMERICAN SOCIETY OF ARCHITECTURAL HISTORIANS (Troy, N.Y.), *1943 Jan.-Apr., pp. 36-42 :*
Early town planning in New York State ; by Turpin C. Bannister. Plans American cities in N.Y. and elsewhere.

JOURNAL OF THE AMERICAN SOCIETY OF ARCHITECTURAL HISTORIANS (Troy, N.Y.), *1943 Jan.-Apr., pp. 22-29 :*
The impact of ancient city planning on European architecture ; by K. Lehmann-Hartleben.

JOURNAL OF THE AMERICAN SOCIETY OF ARCHITECTURAL HISTORIANS (Troy, N.Y.), *1943 Jan.-Apr., pp. 30-5 :*
Mediæval towns ; by Leopold Arnaud, Dean, School of Architecture, Columbia University.

PENCIL POINTS, *1943 Sept., pp. 78-80 :*
Urban redevelopment : discussion opened by C. S. Stearn in " Urbanism " series at Columbia University.

ARQUITECTURA (Col. Nac. de Arg., La Habana, Cuba), *1943 April, pp. 130-3 :*
" Great Britain studies the planning of new cities." General article illustrated by work in Coventry.

JOURNAL OF THE R.I.B.A., *1943 Sept., pp. 251-5 :*
Rebuilding Edinburgh : report by E. L. Westwater of an exhibition arranged by the Edinburgh Architectural Association.

ARCHITECTS' JOURNAL, *1943 July 22, pp. 53, 55 :*
Planning and architecture : exhibition of models by children, average age 14, at Bethnal Green Central School. [Revised version of entry in JNL. Sept., p. 267.]

OFFICIAL ARCHITECT, *1943 Aug., pp. 327-33 :*
" Let the people plan " : long, well-illustrated review of booklet " Our Birmingham."

OFFICIAL ARCHITECT, *1943 Nov., pp. 460— :*
Birmingham : Duddeston and Nechells area (267 acres) redevelopment scheme under direction of H. J. Manzoni, City Engineer. One of largest schemes yet prepared in Britain, complete community for 15,000, with industry, housing, etc. ; fully described. Plan, model.

JOURNAL OF THE INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS, *1943 Oct. 12, pp. xxiv-vii :*
Replanning of Manchester : proposals by staff of Manchester Corporation.

PENCIL POINTS (N.Y.), *1943 Mar., p. 34 :*
Chicago plans. Well-illustrated articles on aspects of Chicago planning, population and land use ; air, road and rail transport ; housing ; neighbour units ; recreation and parks ; business and industrial areas. An important synopsis.

ARCHITECTS' JOURNAL, *1943 Oct. 7, pp. 260-2 :*
New towns : paper by R. L. Reiss to Scottish T. & C.P. Association, advocating decentralisation and garden city development.

ARCHITECT AND BUILDING NEWS, *1943 Oct. 29, pp. 71-4 :*
Vanport City, Oregon, U.S.A. : temporary city for 40,000. Architects, Wolff & Phillips. See previous ARCH. FORUM reference.

RECONSTRUCCIÓN (Madrid), *194 : June-July, pp. 221— :*
Almeria : plans for suburban development.

BUILDER, *1943 Nov. 5, p. 377 :*
Welwyn Garden City : its purpose and future ; by R. L. Reiss ; with figures of land use, etc.

ARCHITECTURAL FORUM, *1943 Oct., pp. 91-9 :*
Project for satellite town for Detroit area, by Smith, Hinchman & Grylls, for 15,000, strategically related to employment. Housing proposed in " Stran-steel " prefab. Site and house plans.

ARCHITECTURAL FORUM (New York), *1943 Aug., pp. 53-62 :*
Vanport City. Satellite industrial city to Portland, Oregon, for Kaiser shipyard workers. 640-acre site includes housing for 40,000, mostly in two-room apartments in blocks of fourteen. Article illustrates housing, school, auditorium, fire station, etc. Structure cedar siding on timber frame.

BUILDER, *1943 Oct. 29, p. 355 :*
Country towns in a national policy : report of Town and Country Planning Association conference.

TOWN AND COUNTRY PLANNING, *1943 Summer, pp. 69-70 :*
Location of industry and air transport, by D. B. Williamson.

ZONING

BUILDER, *1943 Nov. 12, pp. 388-9 :*
Leeds Civic Centre : plans for development, by W. S. Cameron, City Engineer.

JOURNAL OF INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS, *1943 Sept. 14, pp. 81-93 :*
Standards of residential development and redevelopment, by R. Nicholas, B.Sc., M.Inst.C.E., City Surveyor, Manchester. Tabulation of comparative densities and various types of dwellings ; also of daylight ratios and insolation factors ; also of open space factors.

CALIFORNIA ARTS AND ARCHITECTURE (Los Angeles), *1943 July, pp. 32-5 :*
Bunker Hill : rehabilitation of a blighted area of Los Angeles ; projects by students of University of Southern California. Housing, recreation centre.

ARCHITECTURAL FORUM, *1943 Oct., pp. 88-90 :*
School-neighbourhood nucleus : analysis of requirements by N. L. Englehardt, Jr.

SITE PLANNING

BUILDING, *1943 Aug., pp. 209-12 :*
Houses, streets and gardens : article by Walter Segal. Problems of siting, terraces and architectural character.

BUILDING, *1943 Sept., pp. 240-3 :*
Flats, layouts and open spaces : article by W. Segal. Site plan variants illustrated.

ROADS, STREETS, TRANSPORT

JOURNAL OF INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS, *1943 August 17, pp. 41-55 :*
Road planning and road safety, by H. Alker Tripp.

ARCHITECTURAL FORUM, *1943 Oct., pp. 110-2 :*
Street and highway lighting for " 194x " : survey of possibilities, by R. C. Engelken.

AMERICAN CITY (New York), *1943 Sept., pp. 113-5 :*
" Nonsense about the City of Tomorrow " ; by J. A. Miller. Transport development, including airport facilities and motor transport.

PLANNING (P.E.P. Broadsheet), *1943 Sept. 7 :*
Use and misuse of transport. Discussion of transport factors in town planning.

ARCHITECTS' JOURNAL, *1943 Aug. 19, p. 124 : Aug. 26, p. 142 :*
Switchback road crossing : design by E. Pollak and T. W. Kennedy ; in 26 August, correspondence by E. P. and T. W. K.

ARCHITECTURAL FORUM, *1943 Oct., pp. 130— :*
Traffic and the neighbourhood plan : streets, parkway and side-walk planning.

GARDENS ; PRESERVATION OF AMENITY

ARCHITECTURAL FORUM, *1943 Oct., pp. 140— :*
Playground design and equipment. Field sizes, etc.

ARCHITECTURAL REVIEW, *1943 Dec., pp. 163-6 ;*
BUILDER, *Nov. 19, pp. 410-11 ;*
COUNTRY LIFE, *Dec. 10, 1040-1 :*
Landscape plan for Derbyshire cement works, Hope Valley ; by G. A. Jellicoe [*F.*]. A.R. illustration particularly good.

ARCHITECTURAL FORUM, *1943 Oct., pp. 108-110 :*
Landscaping the individual house : article by M. Betty Sprout, landscape architect.

JOURNAL OF INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS, *1943 Sept. 14, pp. 98-104 :*
Planning for amenity, by C. W. C. Needham [*F.*], M.T.P.I.

COUNTRY LIFE, *1943 Sept. 17 :*
National parks : article by A. Gaunt commending inclusion of Forest of Bowland, N. Lancs.

Notes

DESIGNATION OF ARCHITECTS ON THE STATUTORY REGISTER

On the recommendation of the Official Architects' Committee the Council of the R.I.B.A. have approved the following resolution passed by the South Wales Institute of Architects on the subject of the designation of architects on the Statutory Register :

> " That in view of the principles and implications of the Architects (Registration) Act 1931, the synonymous use of the terms ' Architectural Draughtsman ' and ' Architectural Assistant,' is to be deprecated as detrimental to the status of the profession, and it is, therefore, advocated that all those whose names have been recorded in the Statutory Register of Architects shall be officially designated ' Architects ' or ' Assistant Architects ' whenever engaged upon work of a building nature whether or not in departments or offices controlled by a member of this or any other profession."

Copies of this resolution have been sent to all allied Societies in the United Kingdom, and also to the County Architects' Society. Members of the R.I.B.A. who are City and Borough Architects have been requested to bring the terms of the resolution to the notice of local authorities with whom they are serving.

The Final Examination, December 1943

The Final Examination was held in London and Edinburgh from 8 to 16 December 1943.

Of the 56 candidates examined, 33 passed as follows :—

Passed whole examination	17
Passed whole examination subject to approval of thesis	1
Passed whole examination subject to approval of thesis and remaining Testimonies of Study	1
Passed whole examination subject to approval of remaining Testimonies of Study	2
Passed Part 1 only	10
Passed Part 1 only subject to approval of remaining Testimonies of Study	2
	33

23 candidates were relegated.

The successful candidates are as follows :—

PASSED WHOLE EXAMINATION

Adams, John Treadwell (*subject to approval of remaining Testimonies of Study*).
Blacklock, John D.
Brendon, A. Geoffrey C.
Critchlow, Arthur (*subject to approval of Thesis and remaining Testimonies of Study*).
Crossley, Alan.
Daley, Harry.
Early, (Miss) Eleanor M. (*Distinction in Thesis*).
Edwards, John E. Graeme (*Distinction in Thesis*).
Emmerson, George Thomas.
Evans, (Miss) Jessie M. M.
Farquhar, Alexander.
Firth, James Ronald.
Gibbins, Wm. Leighton.
Hughes, Maurice Howard.
Kerr, Frederick H. (*subject to approval of Thesis*).
Monk, Gilbert Leslie.
Reid, Alexander Budge.
Sayce, Gordon Henry.
Sutcliffe, Tom Allison (*Distinction in Thesis*).
Tilley, Michael Floyd (*subject to approval of remaining Testimony of Study*).
Wyatt, Samuel Thomas.

PASSED PART 1 ONLY

Astins, Norman Percy.
Barlow, Leonard Robert.
Edmondson, Kenneth H.
Gold, (Miss) Mary J.
Gowans, Alexander A.
Graham, R. Malcolm (*subject to approval of remaining Testimonies of Study*).
Greenfield, L. Bevil G.
Jarvis, Norman K.
McRobie, Alexander.
Rosner, Rolf (*subject to approval of remaining Testimony of Study*).
Urquhart, William J.
Whittle, Jack.

The Intermediate Examination, November 1943

The R.I.B.A. Intermediate Examination was held in London, Manchester, Newcastle and Belfast from 12 to 18 November 1943.

Of the 103 candidates examined, 28 passed and 75 were relegated. The successful candidates are as follows :—

Bantin, Charles E.
Bellamy, Ivan M.
Bishop, Arthur.
Bramley, John G.
Bullock, W. Gordon S.
Cartledge, Maurice.
Chanter, Francis I.
Clarke, Peter O.
Coughlan, Neville G.
Crook, Norman C.
Germaney, Robert W.
Glen, Donald.
Graham, John K.
Gurney, Geoffrey H.
Hayhoe, Harold R.
Husband, Raymond J.
Jones, Eric S.
Kemp, Alan M.
Lee-Jones, (Miss) J. S.
McKenzie, (Miss) Sheila.
McLennan, David J.
Oxley, Richard E.
Platt, Geoffrey P.
Reed, Kenneth W. C.
Shepherd, William D. (*subject to approval of remaining Testimonies of Study*).
Sherman, (Miss) M. M.
Wing, Ronald W. E.
Wright, Keith.

The Special Final Examination, December 1943

The Special Final Examination was held in London and Edinburgh from 8 to 15 December, 1943.

Of the 39 candidates examined, 25 passed (9 of whom sat for and passed in Part 1 only, and 1 in Part 2 only) and 14 were relegated.

The successful candidates are as follows :—

PASSED WHOLE EXAMINATION

Anderson, Harry.
Barnett, Michael.
Dunand, (Miss) A. E. C.
Guild, William M.
Hamilton, Arthur S.
Harrison, William T.
Harvey, (Miss) G. E. Muriel.
Jeffries, William Trevor.
Loudon, William D.
Orme, William Russell.
Paine, Robert William.
Reeks, Stanley Thomas C.
Rosenthal, H. Werner.
Sommer, (Mrs.) Camilla.
Storer, Frederick E. S.

PASSED PART 1 ONLY

Groag, Jacques.
Hare, Albert Frederick.
Hodgson, Albert.
Lodge, George.
Schoendorff, (Miss) Ellen G.
Simons, Pieter.
Thorpe, Rupert Lyell.
Wyatt, Norman A. E.
Zwinger, Lionel Gordon.

PASSED PART 2 ONLY

Smith, Eric Sydney.

The Examination in Professional Practice for Students of Schools of Architecture Recognised for Exemption from the R.I.B.A. Final Examinations

The Examination was held in London and Edinburgh on 14 and 16 December 1943. 5 candidates were examined and passed.

The successful candidates are as follows :—

Barron, Donald Gabriel.
Booth, Alan Leetchfield.
Coia, John Peter.
Hecht, Samuel P. A.
Hutton, Charles William.

The Examination of Licentiates to qualify for candidature as Fellows

The Examination of Licentiates to qualify for candidature as Fellows was held in London from 8 to 13 December 1943. 4 candidates were examined and passed. The successful candidates are as follows :—

Cross, Max George.
Mort, Arthur Edward Thomas.
Osborne, Arthur Leslie.
Smith, John Marsh.

The A.A. School Refresher Course

The Architectural Association is organising a Refresher Course for architects who have reached the standard of the Final Examination of the R.I.B.A. It will be open to all students, whatever their nationality.

The purpose of the Course is to meet the needs of the demobilised architect, and the extent of the instruction will vary according to individual requirements. The syllabus which follows has been designed to cover two three-monthly periods, but it will be arranged that students can begin at weekly intervals.

The Course will consist of full-time studio work and general study, and an evening lecture course.

The studio work will be arranged so that about half of the students' time can be spent on the main subject he is studying, the remainder on general studies, such as visits, and any activities he wishes to pursue on his own initiative.

The first students to return will be given accommodation in the A.A. School, and will work with the Thesis students under their studio master. As soon as there are sufficient numbers, say ten, this temporary expedient will be abandoned and a separate school set up. At this stage the lecture course will begin and a Director, a practising architect, will be appointed.

The premises for the Course proper will be at No. 7 Bedford Square, London, W.C.1.

Studio Work

The students will study any building type or subject they may choose, but will be required to come to some conclusion either in the form of drawings or a written Thesis illustrated by drawings. The A.A. Thesis curriculum gives a procedure which could be adopted.

The student will be required to prepare a written programme of the work he proposes to do, which would be approved by the School. Those students who do not wish to specialise in a particular building type will be given a programme of study, which for a three months' period might be a design for a housing neighbourhood unit for a site of about 100 acres and a design for house type suitable for a local authority housing site.

Such programmes would be group studies.

Lectures

Studio talks will be given on the set subjects. In addition, there will be two or three evening lectures a week to acquaint the student with war-time developments in legislation, structure, building research and historical studies.

Visits

A series of weekly day-time visits will be arranged to war-time and other buildings which contain special features of interest, or are illustrative of the set subject chosen. There will also be visits to workshops and buildings in the course of erection, where new methods of construction can be studied.

Enrolment

Students, in the first place, will enrol for a period of three months, and continue thereafter on a monthly basis.

A limited number of students who cannot, or do not wish to attend the day course may enrol for the evening lectures.

The Board of Education has stated that this Refresher Course will be acceptable in principle, for assistance under the Government Scheme for Further Education and Training for men and women who have been engaged in various types of war service. This scheme provides for awards to applicants who require refresher courses on returning to their profession. The Government leaflet explaining the scheme is P.L. 120/1943, and may be obtained from the Appointments Department, Ministry of Labour and National Service, Sardinia Street, London, W.C.2.

Applications for enrolment and enquiries should be sent to the Secretary, The Architectural Association, 35 Bedford Square, W.C.1.

TEACHING APPOINTMENT VACANT

Applications are invited for the post of Full-time Senior Lecturer in Constructional Subjects at the Polytechnic, Regent Street, London, W.1, School of Architecture.

Candidates must be Fellows or Associates of the Royal Institute of British Architects. Previous teaching experience essential. The Degree or Diploma of a fully-recognised School of Architecture will be a recommendation for the post.

Salary in accordance with the Burnham Technical Scale for London (plus war-time bonus), subject to the usual 5 per cent. deduction for superannuation. Commencing salary according to previous teaching and professional experience. A special responsibility allowance is probable.

Forms of Application, which must be returned not later than 1 April 1944, and further particulars of the post, can be obtained by sending a stamped, addressed foolscap envelope to the Director of Education, The Polytechnic, 309 Regent Street, W.1.

TECHNICAL MAGAZINES AND PERIODICALS FOR THE R.A.F.

Mr. C. J. Eprile [*F.*], who is now serving in the R.A.F.V.R. as a Squadron Leader, is organising the distribution of Technical Magazines for men in the R.A.F. interested in Building and Architecture. Care is taken in the distribution, that preference is given to Units commanded by members of the R.I.B.A., and we understand from S/Ldr. Eprile that lectures and discussions on the fundamental aspects of building are to be arranged, particular attention being paid to post-war problems of construction. This supplements and amplifies training, and the magazines are circulated as an adjunct to the lectures and discussions, and from all accounts prove very popular.

The R.I.B.A. has been very instrumental in collecting through various channels a large quantity of magazines for this purpose, but as the number of men benefiting from this scheme runs into many thousands, it will be seen that the demand is well-nigh insatiable. Any gifts, therefore, of up-to-date technical magazines, including American Technical Publications, dealing with the trades connected with the building industry and civil engineering would be very acceptable. They should be sent carriage paid to Miss Bromley, c/o R.I.B.A., 66 Portland Place, W.1.

PROFESSOR CLAUDE BATLEY COMMEMORATION FUND

In the note on page 44 of the December issue of the Journal it is erroneously stated that the School of Architecture of the Bombay School of Art is recognised for exemption from the R.I.B.A. Final Examination. This is not the case. The School is, however, recognised for Intermediate Exemption.

Membership Lists

ELECTION : MARCH 1944

An election of candidates for membership will take place in March 1944. The names and addresses of the candidates, with the names of their proposers, found by the Council to be eligible and qualified in accordance with the Charter and Bye-laws are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary R.I.B.A. not later than Saturday, 11 March.

The names following the applicant's address are those of his proposers.

AS HON. ASSOCIATE (1)

MacAlister : Sir Ian, M.A. (Oxon), F.C.I.S., 53 The Pryors, East Heath Road, N.W.3. Proposed by the Council.

AS HON. CORRESPONDING MEMBER (1)

Ashton : Raymond J. President of the American Institute of Architects, Salt Lake City, Utah, U.S.A. Proposed by the Council.

AS FELLOWS (5)

BAGENAL : PHILIP HOPE EDWARD, D.C.M. [*A.* 1918], Leaside, Hertingfordbury, Herts. H. M. Fletcher, Edward Maufe and B. M. Sullivan.

BOND : ROBERT OWEN [*A.* 1933], 26 Tombland, Norwich ; Silfield Lodge, Wymondham, Norfolk. E. P. Mawson, H. W. Weedon and J. O. Bond.

JACKMAN : FREDERICK [*A.* 1920], Board of Education, 14 Belgrave Square, S.W.1 ; 14 Overbury Avenue, Beckenham, Kent. C. G. Stillman, J. H. Haughan and A. C. Bunch.

KINGSFORD : GEOFFREY MONTAGUE, Sqn. Ldr. R.A.F.V.R., M.A. Cantab. [*A.* 1930], 6 Adam Street, W.C.1 ; Littlewood, Echo Pit Road, Guildford. A. E. Hughes, Arnold Silcock and T. R. Clemence.

SUGDEN : HOWARD DAVY [*A.* 1922], Ministry of Supply, Horseferry House, S.W.1 ; 102 Fitzjohn's Avenue, Hampstead, N.W.3. E. B. Musman, W. J. Palmer-Jones and C. W. Box.

AS ASSOCIATES (3)

The name of a school, or schools, after a candidate's name indicates the passing of a recognised course.

BROODBANK : DENIS ARTHUR (The Polytechnic, Regent Street, London), Perivale, Greenhill Road, Otford, Kent. Joseph Addison, J. Kenneth Hicks and Emil C. Scherrer.

CHAPMAN : PETER PAUL FREDERICK, B.Arch. [Univ. Coll., Dublin], Church Street, Strokestown, Longford, Eire. Applying for nomination by the Council under Bye-law 3 (*d*).

WRIGHT : HILTON [Arch. Assoc.], 19 Oxford Road, S.W.15. Fredk. Gibberd, A. M. Chitty and G. A. Jellicoe.

AS LICENTIATES (14)

BRATTON : LESLIE, Air Ministry Works Directorate, London ; "Oak Cottage," Lane End, Nr. High Wycombe, Bucks. Alfred Forrester, A. F. C. Bentley and Paul Badcock.

BUSHELL : WILLIAM GEORGE, Architect's Department, L.C.C., County Hall, Westminster ; Kent House, Wrotham Road, Isted Rise, Nr. Gravesend, Kent. J. W. Hepburn, R. Wilson and Edwin Williams.

DE HELSBY : BERTRAM, 2a High Park Road, Richmond, Surrey. The late P. I. Elton, A. W. Harwood and J. Brian Cooper.

DINGLE : AUBREY HENDON DAWES, 74 Ferryhill Road, Aberdeen. I. G. Smith, R. E. Enthoven and J. L. Denman.

JUDSON : FREDERICK ROY, L.C.C., County Hall, Westminster Bridge, S.E.1 ; 66 Oakwood Road, Hampstead Garden Suburb, N.W.11. J. W. Hepburn, R. Wilson and Edwin Williams.

MOIR : NEIL BURKE, Architectural Section, Housing Department, Glasgow Corporation, 20 Trongate, Glasgow, C.1 ; 958 Cumbernauld Road, Glasgow, E.1. Gavin Lennox and the President and Secretary of the Glasgow Inst. of Arch. under Bye-law 3 (*a*).

PAYNE : ROBERT WILLIAM, Housing Architect's Office, Town Hall, Reading ; 14 Pitts Lane, Earley, Reading. T. L. J. Chamberlain, John Greaves and Ernest Ravenscroft.

PURSLOW : CYRIL STANLEY, 49 Westbourne Road, Handsworth, Birmingham, 21. A. W. Whitwell, J. B. Surman and S. J. Stainton.

RONCHETTI : ROBERT ALOYSIUS, 30 St. Winifred's Road, Harrogate. The President and Hon. Secretary of the West Yorks. Soc. of Arch. under Bye-law 3 (*a*), and applying for nomination by the Council under Bye-law 3 (*d*).

SAUNDERS : KENNETH ALFRED, Office of The Commissioners of Crown Lands, 35 Cromwell Road, S.W.7 ; 69 Crofts Road, Kenton, Middlesex. L. A. D. Shiner, F. S. Hammond and C. E. Tebbs.

SMITH : ARTHUR CHARLES PLUMPTON, Architect's Department, Messrs. Hewitt Bros., Ltd., Tower Brewery, Pasture Street, Grimsby ; 310 Hainton Avenue, Grimsby. Applying for nomination by the Council under Bye-law 3 (*d*).

SWAINE : ANTHONY WELLS, The Chapter Office, The Precincts, Canterbury ; 10 The Precincts, Canterbury. H. C. Ashenden and the President and Hon. Secretary of the S.E.S.A. under Bye-law 3 (*a*).

WILCOX : HAROLD, 96 Victoria Avenue, Bloxwich, Walsall, Staffs. Frank Wager and the President and Hon. Secretary of the Birmingham and Five Counties A.A. under Bye-law 3 (*a*).

WOOD : GEORGE RONALD HAIRSINE, Catterick, Yorks ; Applying for nomination by the Council under Bye-law 3 (*d*).

ELECTION : JANUARY 1944

The following candidates for membership were elected in January 1944.

AS FELLOWS (11)

DURNFORD : WILLIAM JOHN [*A.* 1920].

FORWARD : MAURICE HOWARD, P.A.S.I. [*A.* 1932], Dewsbury.

GARDHAM : HENRY EDGAR [*A.* 1931], Sheffield.

MACMANUS : FREDERICK EDWARD BRADSHAW [*A.* 1926].

NORTH : THOMAS EUGENE [*A.* 1936].

PAXTON : NORVAL ROWALLAN, M.C. [*A.* 1923], Leeds.

PICKFORD : LEONARD [*A.* 1921].

SALISBURY : JOHN VYVYAN (Lt. R.N.V.R.) [*A.* 1938].

VANES : ROBERT NEWTON [*A.* 1909].

And the following Licentiates who are qualified under Section IV, Clause 4 (*c*) (ii) of the Supplemental Charter of 1925 :

BACON : FRANCIS.

CLARKE : ERNEST SEYMOUR, F.S.I.

AS ASSOCIATES (6)

BEAUMONT : JOSEPH DUNCAN, Bangor, Co. Down.

CHANDLER : HUGH BRIAN.

FORREST : FRANK, Harrogate.

HUTCHINGS : MISS PHYLLIS MARY, Frodsham, Cheshire.

POTTS : JOHN DOUGLAS, Dip. Arch. (Sheffield), Sheffield.

TALLON : JUSTIN DAVID, B. Arch., Belfast.

AS LICENTIATES (18)

BIRD : GEORGE WILLIAM.

BROWN : ARTHUR, Huddersfield.

BRYCESON : THOMAS GORDON.

CLARE : ARTHUR ROY.

CLAYDON : JOHN ARTHUR, Bedford.

CRONIN : JOHN REGINALD PATRICK, Rugby.

EMERY : WILLIAM WALTER, Stoke-on-Trent.

FORBES : JOHN ROBINSON, Belfast.

HOFMANN : EDGAR DANIEL.

HOWKINS : ERNEST GEORGE.

LAWSON : STUART CURPHEY.

MORLEY-PARK : WERNER, Nottingham.

MURTHWAITE : STANLEY FRANK.

ORGAN : EDWARD DANIEL, Weston-super-Mare.

RICHARDSON : ROBERT HENRY WILLOBY.

SOMERSET : JAMES HERBERT.

VALENTINE : WILLIAM CHARLES.

WALFORD : STANLEY ARTHUR, Parkstone.

COMPETITION

BALLYOWEN, Co. DUBLIN : NEW TUBERCULOSIS SANATORIUM

The Corporation of Dublin invite architects to submit in competition designs for a new Tuberculosis Sanatorium to be erected at Ballyowen, Co. Dublin.

Assessors :—Harry Allberry [*A.*] (Chairman) ; Vincent Kelly, P.R.I.A.I. [*F.*] ; J. Murray Easton [*F.*] ; Ralph Byrne, F.R.I.A.I. ; Dr. A. J. Walsh, M.B., Ch.B., D.P.H.

Premiums :—£500, £350, £250 and £150.

Last day for submitting designs, 30 June 1945.

Last day for questions :—21 July 1944.

Conditions of the competition may be obtained from the City Manager and Town Clerk, Public Health Department, Municipal Buildings, Dublin.

Deposit £3 3s.

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PRACTICES AND ADDRESSES

ASSOCIATE wishes to hear from established firm with practice in Kent —Maidstone, Medway, Ashford, Tonbridge—to discuss association as partnership. Capital available.—Reply Box No. 5244, c/o Secretary, R.I.B.A.

THE WIDOW of a recently deceased Member, R.I.B.A., has Practice for disposal. Only office in Belper, near Derby. Fully-equipped Drawing Office, Private Office, Instruments, Levels, Plan Files, etc. CAN BE ACQUIRED with or without house, which may be rented.—Reply Box 7244.

MESSRS. WRIGHT & KIRKWOOD [*L./A.*] have opened a branch office at 1 East Blackhall Street, Greenock, and will be glad to receive trade brochures at that address.

MAJOR P. RUSSELL WALKER, R.E. (T.) [*A.*], will, on demobilisation, be joining Mr. F. Halliburton Smith [*F.*] in partnership. The firm will continue practice at 35 New Broad Street, E.C.2, under the name of Adams Smith, Son & Walker.

WANTED

WANTED, *Cité hospitalière de Lille*, by Paul Nelson. Published Paris, 1933, at £1 7s. 6d.—Offers to J. H. NAPPER, A.R.I.B.A., 27 Eastwood Gardens, Newcastle-upon-Tyne, 3.

Wanted by Student in Forces : Copy of *Modern Cinemas and Theatres*, by P. Morton Shand, and *Planning*, by E. and O. E., latest edition.—Write offers to S/Sgt. J. Adams, R.E., c/o C.E.N.I. Home Forces.

St. Margaret's Church, King's Lynn.

THE church register records the baptism of Captain George Vancouver, the great navigator who sailed in the "*Endeavour*" with Captain Cook, and afterwards gave his name to the island province in British Columbia. That British people all over the world should prefer a British product is natural, but only a high estimate of its worth can explain why, until the outbreak of war, 'PUDLO' Brand waterproofer was so largely used in many other countries where it was handicapped against native products by heavy import duties and in some cases by depreciated currencies.

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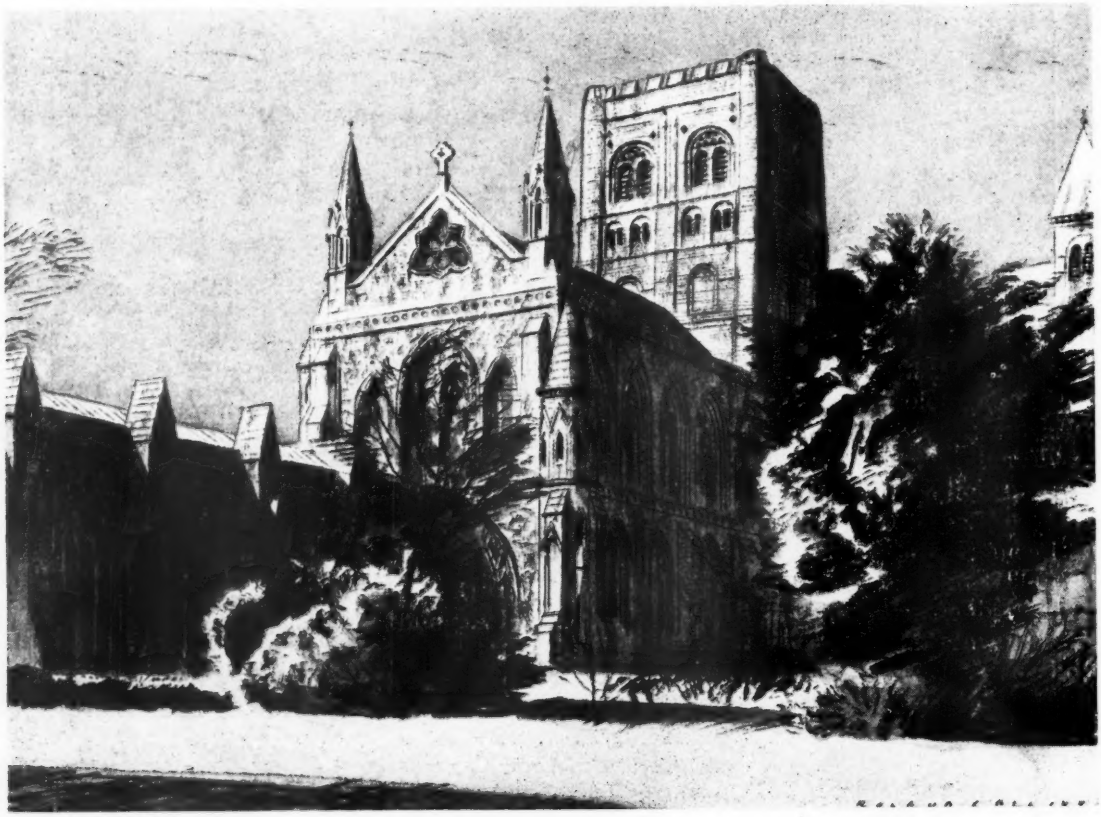

★ The massive Norman tower of St. Alban's Abbey, Hertforshire, one of the greatest in the country, was built between 1010 and 1093 by Abbot Paul de Caen. It is composed of bricks pillaged from the Roman city of Verulamium, on a hill across the little river Ver, and is remarkable for its lovely colour in the sunlight of an autumn evening.

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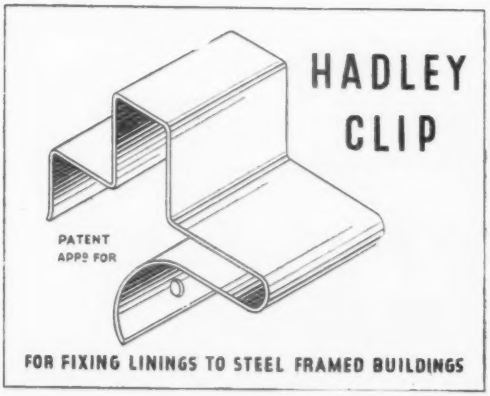

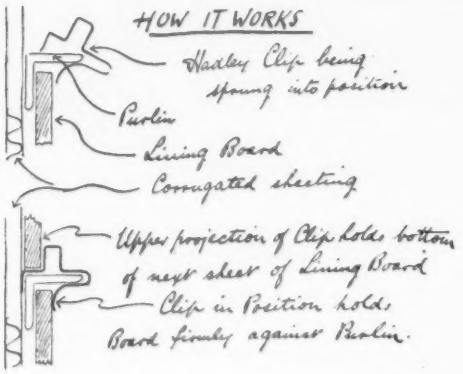
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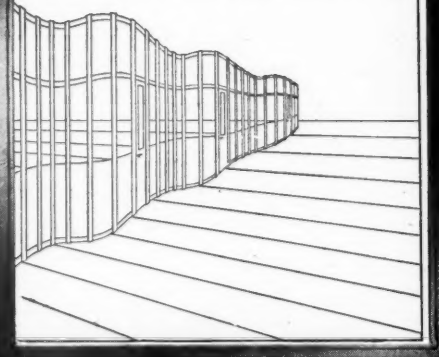

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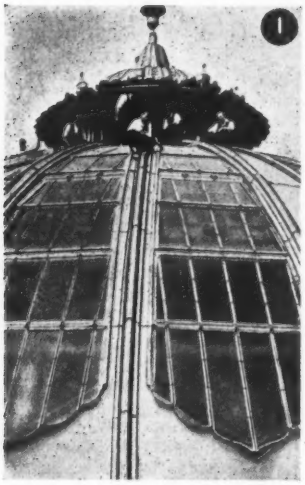
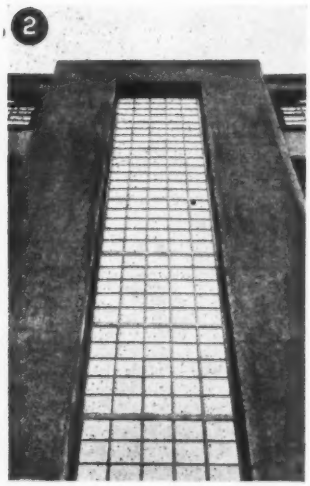


In the new era which follows Victory, the demand will be both for more buildings and better buildings and in that renaissance Haywards Building Specialities must take a not unimportant place. Then as now we shall co-operate with all who need us, placing our experience, skill and service at the disposal of the industry as it is once again organised for the activities of peace. And in the meantime—"We work with you for Victory."



1. Haywards "Reform" Roof Glazing is used extensively on all classes of buildings and for all forms of glazed roofs. It is scientific, efficient and economical, and readily applied to new or existing structures. "Reform" glazed Skylights and Lantern Lights are also in wide demand.

2. Haywards "Crete-o-Lux" Lights for pavements, floors, roofs, canopies, windows, etc., are the most modern form of reinforced concrete construction. Illustration shows a "Crete-o-Lux" Window. Iron Frame Lights also supplied. *Haywards are the pioneers* of lens lighting.

3. Haywards Stairs, External Fire Escape and Internal Fire-resisting are designed to suit any conditions. An internal "Steelock" staircase is shown here, the special form of construction being safe, strong, adaptable, economical and easily erected. Its fire-resisting character is of importance.

4. Haywards Metal Windows are designed along modern lines to meet all architectural requirements for public, industrial and private buildings. They are purpose-made to suit individual specifications.

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INVISIBLE PANEL WARMING ASSOCIATION

formed to promote and to exchange and codify technical information

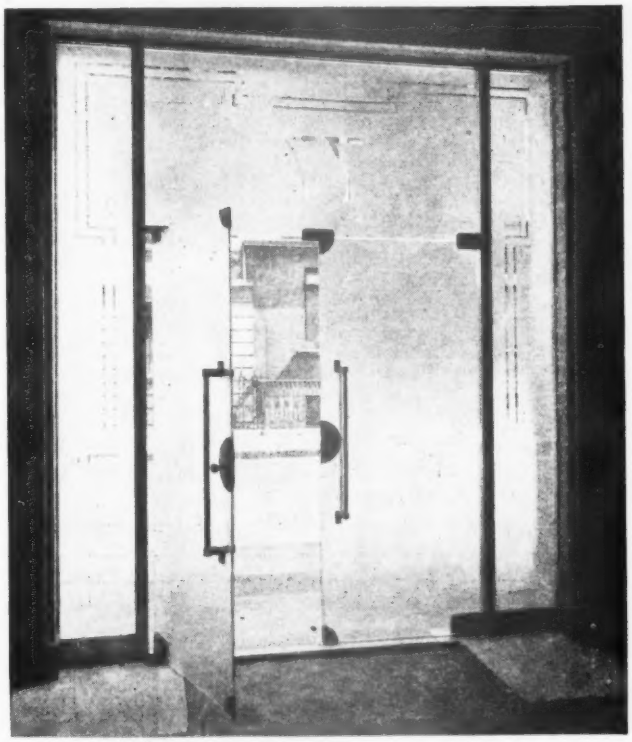
FACTS ABOUT GLASS FOR ARCHITECTURAL STUDENTS

USES —No. 10 **"Armourplate"** and other toughened glasses

"ARMOURPLATE"

"ARMOURPLATE" is manufactured from clear polished Plate Glass by a process of heating and sudden cooling, finally resulting in a strong compression in the two outer surfaces with tension in the centre of the Glass. The resultant glass is approximately seven times more resistant to impact and over four times as resistant to pressure than ordinary plate glass. In addition, "ARMOURPLATE" will withstand phenomenal temperature changes without being affected in any way.

"ARMOURPLATE" Glass, in addition to its extra strength, retains all the qualities of ordinary Polished Plate Glass, namely transparency, flatness of surface (giving undistorted vision) and brilliant lustre, and furthermore does not discolour with age.



Frameless "Armourplate" doors, at the entrance to a block of flats, provide diffused light with privacy to the interior.

SOME USES:

These characteristics make "ARMOURPLATE" Glass suitable for use in industrial and domestic spheres where exceptional strength and durability is called for and further extend the possible uses of glass in everyday life.

One of its constructional uses is portrayed in the illustration above. Other uses include, hospital locker, trolley and table tops, screens and shelves, machinery guards, display signs, electric or gas flood lighting, porthole glasses, fire screens, fire blowers, etc.

TOUGHENED GLASSES

The toughening process can also be applied to a range of other glasses, but the extent to which the strength of the glass and its resistance to temperature changes can be increased depends upon the type of glass used. This may be Toughened Black Glass (shop fronts and facias), Rough Cast Glass, Figured and Cathedral White and tinted (generally to resist heat), Stippolite and Selenium (lighting effects) and Tinted Polished Plate.

Embossed, Sandblasted, painted and fired Toughened glass can normally be supplied, but details should be submitted for consideration.

This is published by Pilkington Brothers Limited, of St. Helens, Lancashire, whose Technical Department is always available for consultation regarding the properties and uses of glass in architecture.

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where architectural students may get advice and information on all questions relating to the properties of glass and its use in building.

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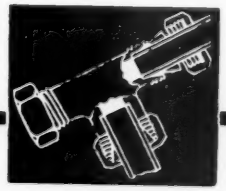

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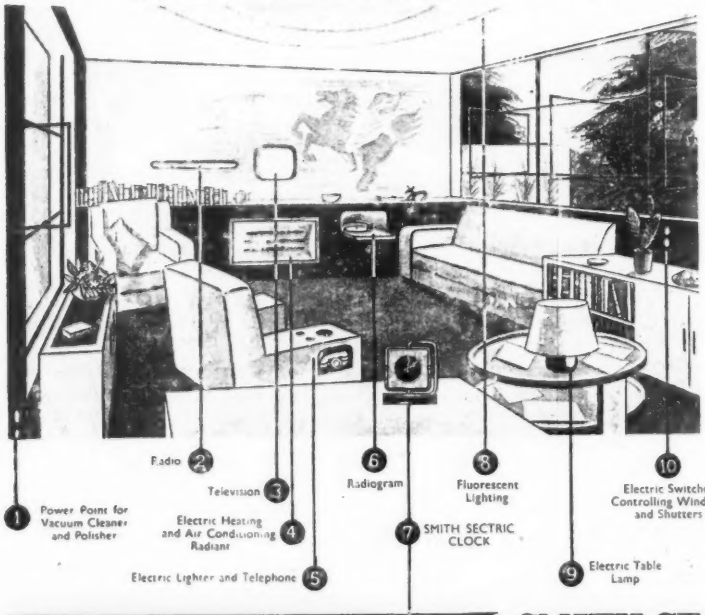
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No. 4

THE LOUNGE

This suggestion is respectfully submitted to our professional friends with the thought that they will find interest and usefulness in a constructive laymen's vision of what should be provided in the post war era.

★

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"Pot Luck" A.D. 1200

(They took their fuel as they found it)

The castle cook of the 13th Century, called upon to cope with an unexpected visit from two hundred guests, had to wrestle with an array of pots and log fires installed in lean-to kitchens, usually built against the wall of the inner bailey. His order was a large one, but the fare was simple, appetites were unsophisticated . . . and what mattered a little smoke and ashes when the royal venison was on the menu ?

Large-scale catering to-day makes even greater, and certainly more exacting demands on the cook. Many a modern kitchen, equipped with stock pots, multiple ranges, roasting ovens, grills and toasters, porridge and milk boilers, steamers, fish-frying ranges, hot water boilers, thermostatically controlled hot cupboards and serving tables, demands fuel on tap for 24 hours a day. Gas provides the fuel, a fuel which is clean, speedy and reliable in operation . . . a fuel which is economical, which has the necessary flexibility for fluctuating demand . . . a fuel which lends itself to use with compact and comprehensive labour-saving equipment.

To-day, thousands of British Restaurants, Forces and Factory Canteens, and Mobile Cooking Units are proving the value of gas in feeding a Nation at war.

FOR POST-WAR COOKING
GAS WILL MAKE LIGHT OF THE JOB

Gas equipment is only available for priority work, but architects planning for the post-war period can benefit from war-time experience and achievement.

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LOOKING
AHEAD . . .

to the brighter days when construction, not destruction, will occupy our thoughts, the woodworking industry is already planning new methods of using this indispensable material to the best possible advantage. We look forward to extending the tradition of good service and craftsmanship which we have built up during more than half a century of trading.

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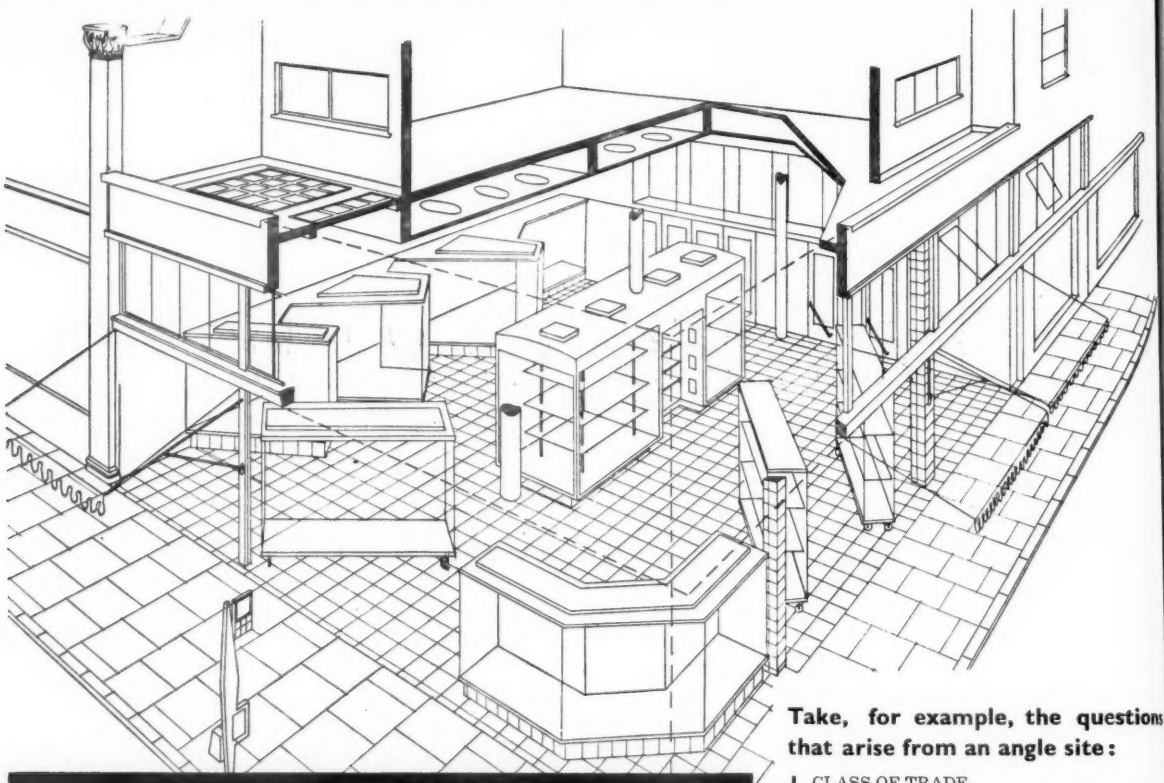
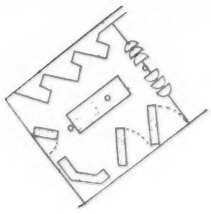


WHAT ARE THE PROBLEMS OF SHOP DESIGN?



These and other questions are being studied now by the SHOP SURVEY DIVISION of Harris & Sheldon Ltd. in connection with post-war problems of rebuilding old shops and making new ones. The Shop Survey Division was formed to collect opinions, facts and views on shop planning from shop owners, managers, stock-controllers, display men, and all people connected with the business of retail selling: also to study the tradition, history and trend of shop design ; and is at the Architect's service.

Take, for example, the questions that arise from an angle site:

1 CLASS OF TRADE.
What type of clientele is to be attracted. Proportions of site to be given to display and to selling. Type of display: exclusive or massed.

2 EFFECT OF ORIENTATION.
Maximum use of daylight, aided by roof lights and clerestory.
Equitable distribution of space between windows and ceiling.
Depth of open display. Type of sun blinds dependent on local height regulations. Where should supports for sunblinds be fixed on open front.

3 ENTRANCE TO SHOP.
Position of entrance doors in relation to frontage. Size, type, number and grouping of doors. Draught exclusion. Special treatment of doors for air conditioned premises.

4 TREATMENT OF WINDOWS.
Dimensions dependent on class and type of goods to be sold.
Lighting, ventilation and weatherproofing.

5 TREATMENT OF SHOWCASES.
Type, lighting, waterproofing where exposed. Arrangement (continuous or island). Constructional materials.

6 OPEN DISPLAY.
Closing at night (movable showcases).
Burglary protection.
Gangway widths.

7 INTERIOR PLANNING.
Width of gangways to ensure adequate customer flow. Type, and most practical position for selling cases. Illumination.

PUBLISHED BY THE SHOP SURVEY DIVISION OF **HARRIS & SHELDON LIMITED**

MAKERS OF SHOPS

Works & Head Office: Stafford Street Birmingham 4. Telephone: Central 7101. London Office: 27, Berkeley Square W.1 Telephone: Mayfair 2017. Glasgow Office: 94, Miller Street. Manchester Office: Fernleaf Street, Moss Side. Loughborough Office: Woodgate.

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